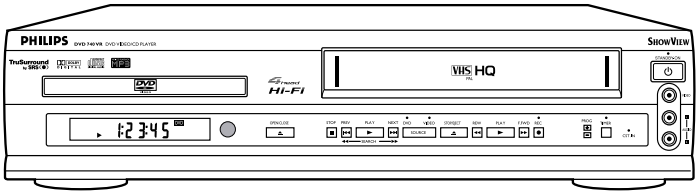
DVD-Video Player

DVD740VR

DVD740VR /001 /051

Service
Service
Service



Service Manual

CLASS 1
LASER PRODUCT

DVD VIDEO™

COMPACT disc DIGITAL VIDEO

COMPACT disc DIGITAL AUDIO

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PHILIPS

MAIN SECTION

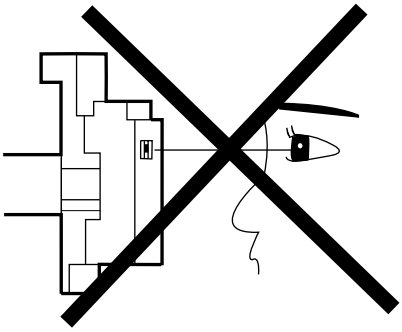
DIGITAL VIDEO DISC PLAYER & VIDEO CASSETTE RECORDER

Sec. 1: Main Section

- **Adjustment Procedures**
- **Schematic Diagrams and CBA's**
- **Exploded Views**
- **Mechanical and Electrical Parts List**

LASER BEAM SAFETY PRECAUTIONS

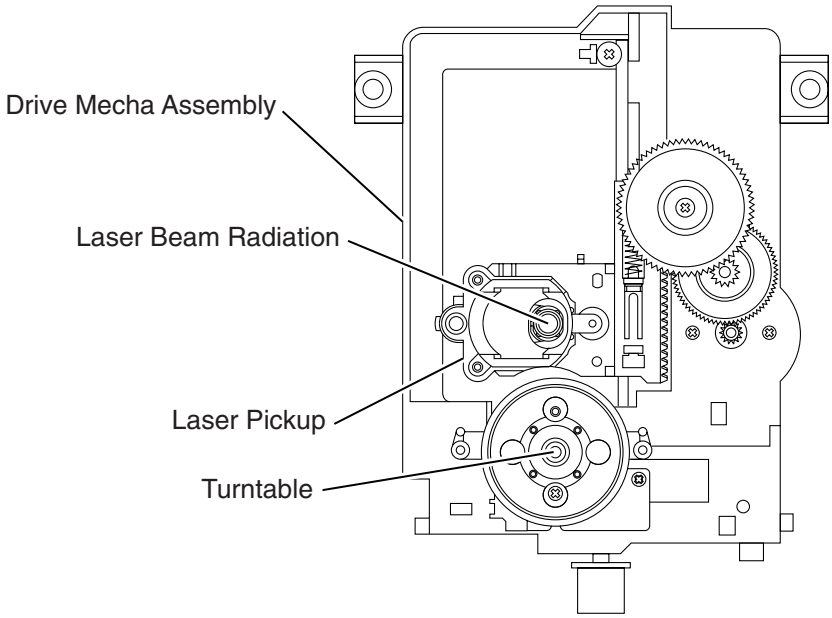
This DVD player uses a pickup that emits a laser beam.

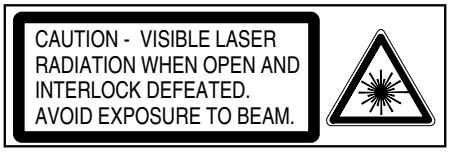


Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

Caution: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.





Location: Inside Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced**.**

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1)Wires covered with PVC tubing

2)Double insulated wires

3)High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1)Insulation tape

2)PVC tubing

3)Spacers

4)Insulators for transistors

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

G. Check that replaced wires do not contact sharp edges or pointed parts.

H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. Crimp type wire connector
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.
Replacement procedure

1)Remove the old connector by cutting the wires at a point close to the connector.

Important: Do not re-use a connector. (Discard it.)

2)Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

3)Align the lengths of the wires to be connected. Insert the wires fully into the connector.

4)Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1 : Ratings for selected area

AC Line Voltage	Clearance Distance (d) (d')
110 to 240 V	≥ 3mm(d) ≥ 6 mm(d')

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

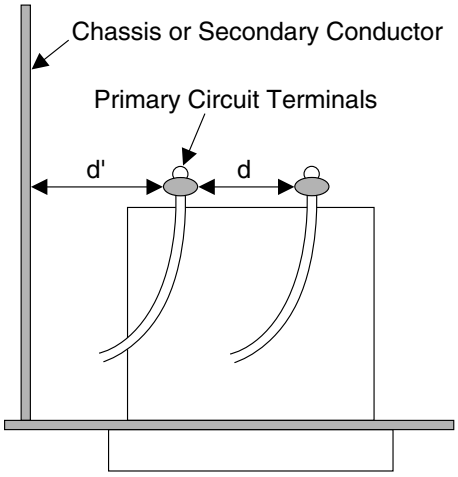


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method (Power ON) :

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

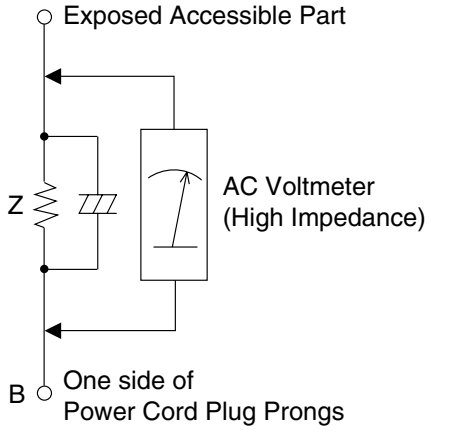


Fig. 2

Table 2: Leakage current ratings for selected areas

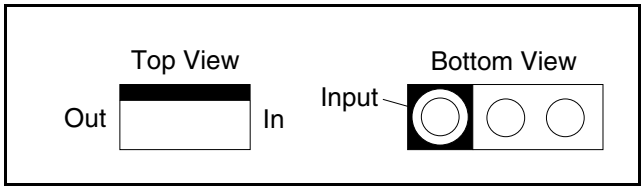
AC Line Voltage	Load Z	Leakage Current (i)	One side of power cord plug prongs (B) to:
110 to 240 V	2kΩ RES. Connected in parallel	i≤0.7mA AC Peak i≤2mA DC	RF or Antenna terminals
	50kΩ RES. Connected in parallel	i≤0.7mA AC Peak i≤2mA DC	A/V Input, Output

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

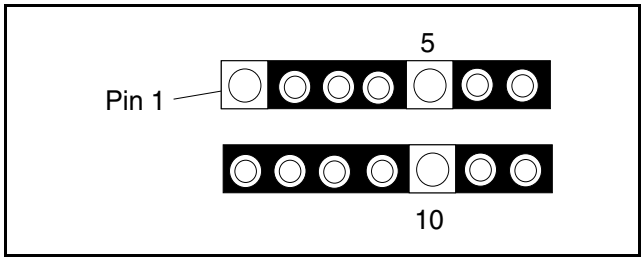
STANDARD NOTES FOR SERVICING

Circuit Board Indications

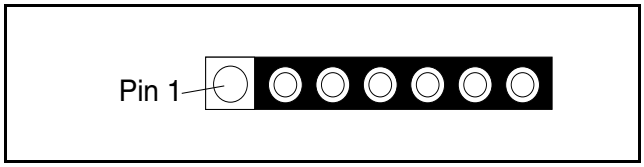
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



b. For other ICs, pin 1 and every fifth pin are indicated as shown.

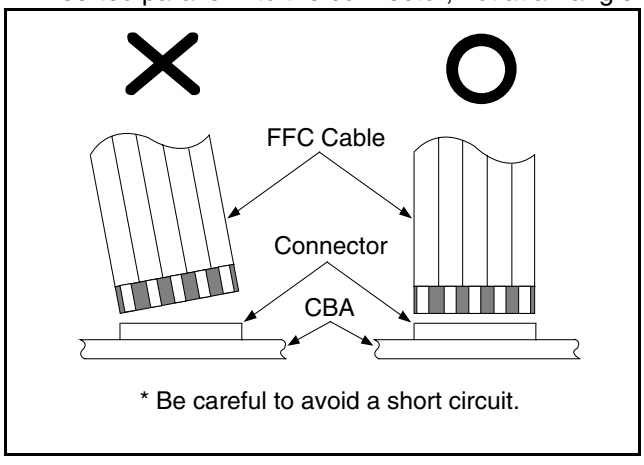


c. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:.

(1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

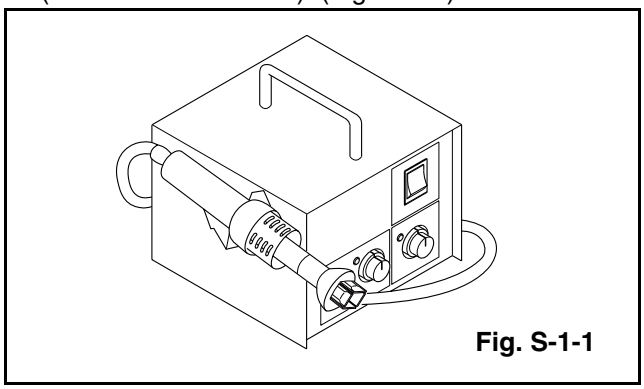


Fig. S-1-1

(2) Remove the flat pack-IC with tweezers while applying the hot air.

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Caution:

1. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
2. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

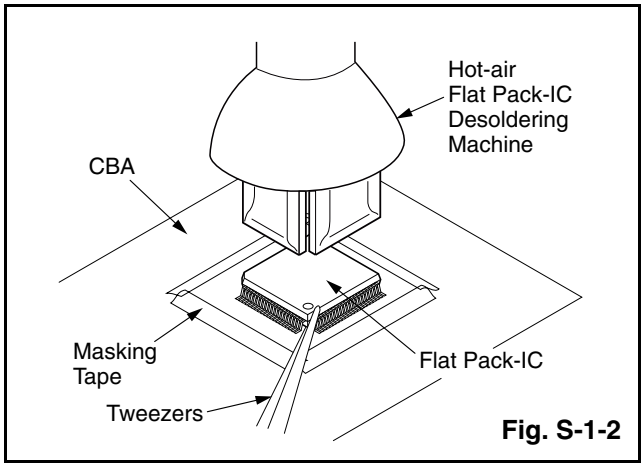


Fig. S-1-2

With Soldering Iron:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

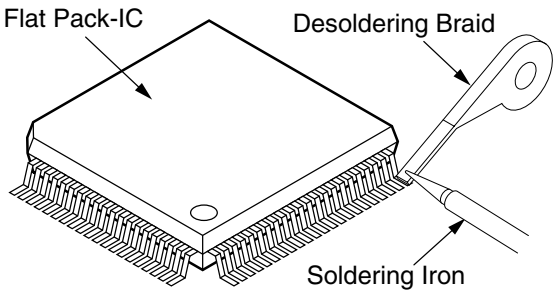


Fig. S-1-3

(2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

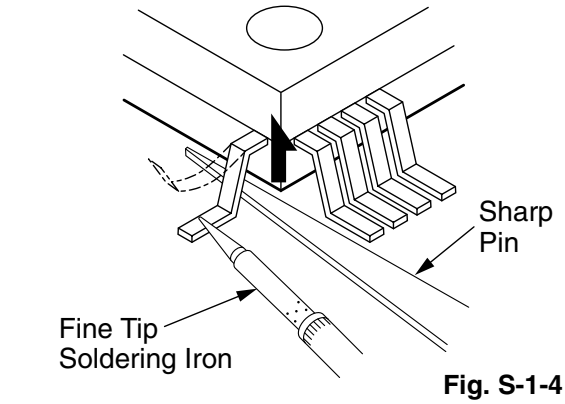


Fig. S-1-4

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

(2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5

(4) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(5) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

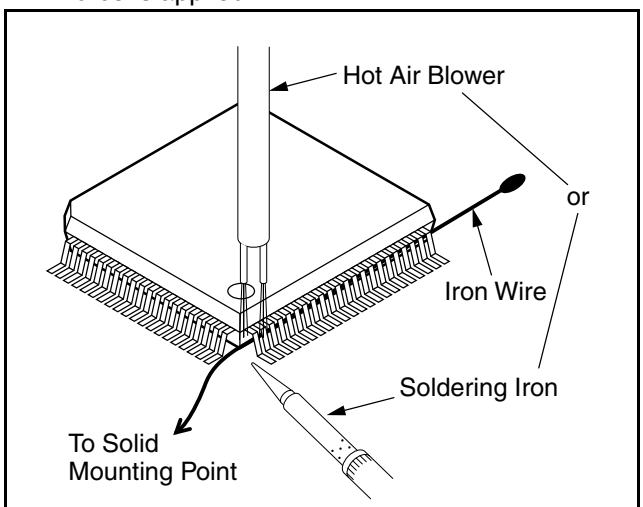


Fig. S-1-5

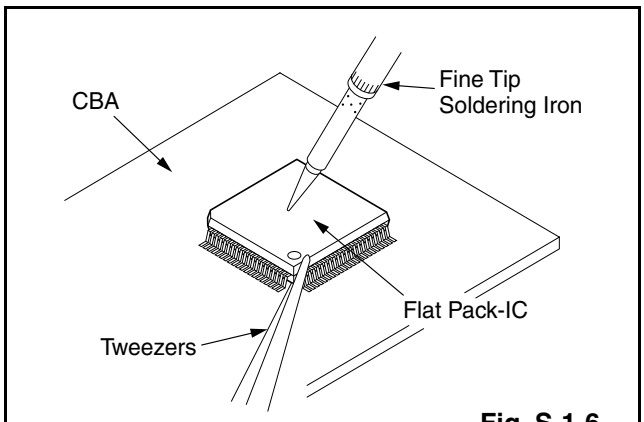


Fig. S-1-6

2. Installation

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

(2) The " ● " mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)

(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

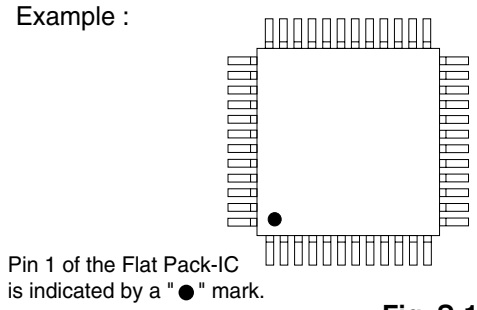


Fig. S-1-7

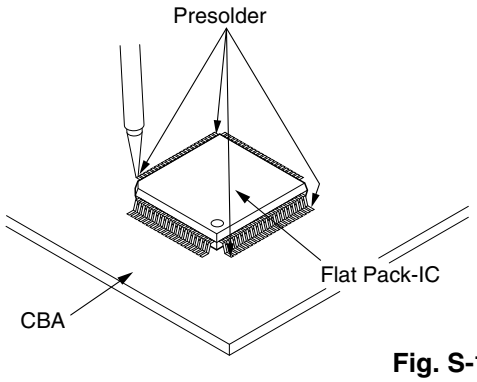


Fig. S-1-8

Instructions for Handling Semi-conductors

Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

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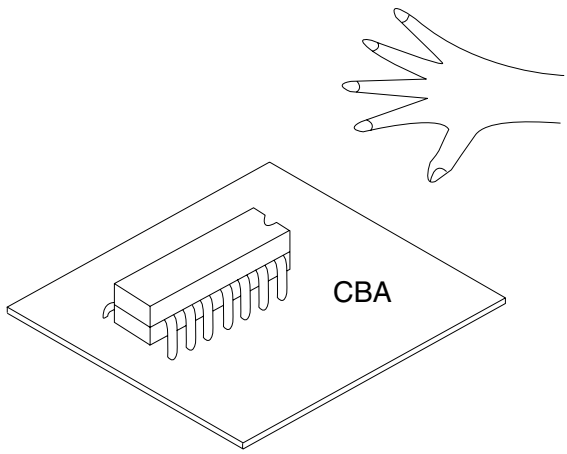

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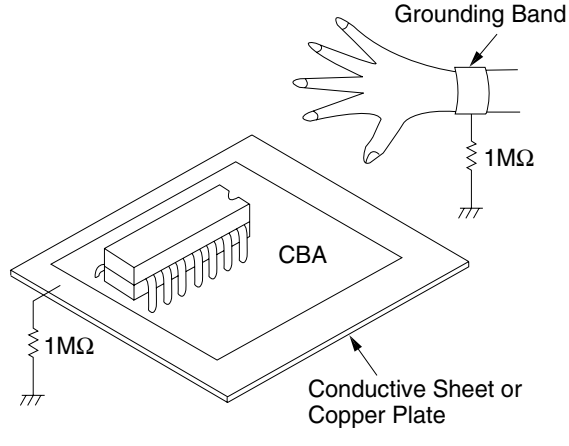


PREPARATION FOR SERVICING

How to Enter the Service Mode

About Optical Sensors

Caution:

An optical sensor system is used for the Tape Start and End Sensors on this equipment. Carefully read and follow the instructions below. Otherwise the unit may operate erratically.

What to do for preparation

Insert a tape into the Deck Mechanism Assembly and press the PLAY button. The tape will be loaded into the Deck Mechanism Assembly. Make sure the power is on, TP501 (SENSOR INHIBITION) to GND. This will stop the function of Tape Start Sensor, Tape End Sensor and Reel Sensors. (If these TPs are connected before plugging in the unit, the function of the sensors will stay valid.) See Fig. 1.

Note: Because the Tape End Sensors are inactive, do not run a tape all the way to the start or the end of the tape to avoid tape damage.

About REC-Safety Switch

Caution:

The REC-Safety Switch is directly mounted on the Main CBA. When the Deck Mechanism Assembly is removed from the Main CBA for servicing, this switch does not work automatically.

What to do for preparation

In order to record, press the Rec button while pushing REC-SAFETY SW on the Main CBA. See Fig. 1.

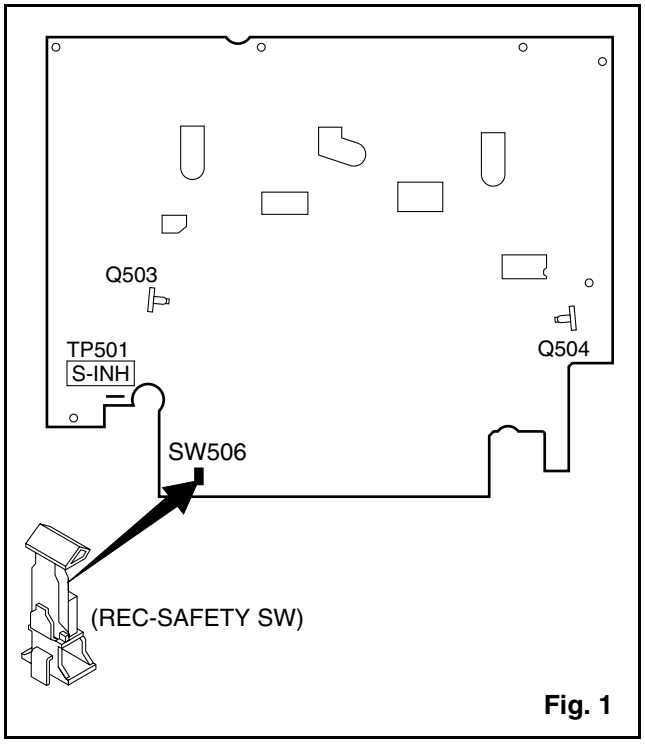
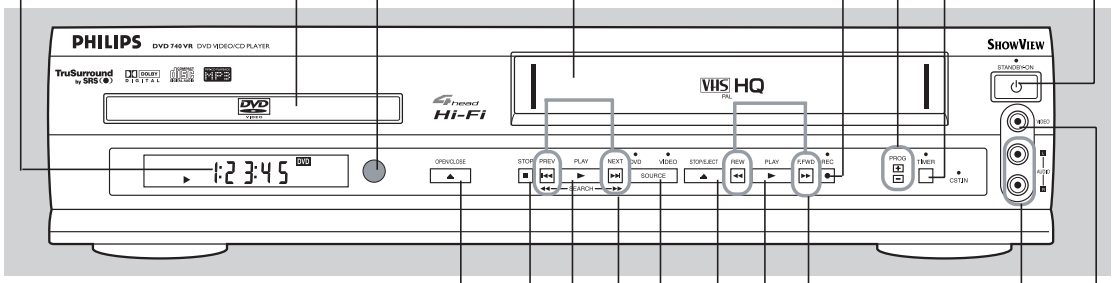


Fig. 1

OPERATING CONTROLS AND FUNCTIONS

[DVD740VR/001]

Front Panel



STANDBY-ON
– to switch the player to ON or OFF

TIMER
– to put the DVD/VCR into standby mode for a timer recording

PROG + –
– In VCR mode, to change TV channels, to adjust tracking during playback or to remove vertical jitter in a still picture

REC (RECORD)
– Press once to start recording, repeatedly to start an One-Touch Recording

DISPLAY
– shows the current status of the player

Disc Tray
– insert a disc here

Remote Sensor
– receive signals from remote control

Cassette Compartment
– insert a tape here

SOURCE (OUTPUT)
– to select between DVD and VCR mode

|◄◄ PREV / ►►| NEXT (DVD)
– goes to previous or next chapter or track during playback; press and hold for three seconds for a forward and reverse search

► PLAY (DVD)
– to start, pause or resume disc playback

■ STOP (DVD)
– to stop playback

▲ OPEN/CLOSE
– to open/close the disc tray

▲ STOP/EJECT (VCR)
– when playback is stopped, press to eject the tape

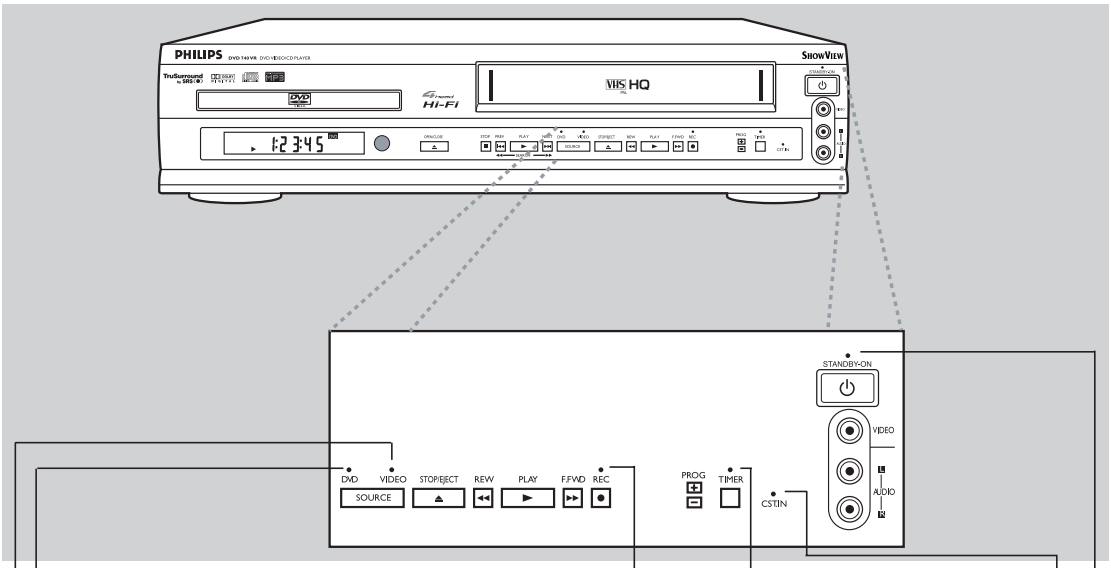
► PLAY (VCR)
– to play or pause a tape

◄◄ REW / ►► F.FWD (VCR)
– rewind or fast forward at high speed during playback is stopped

AUDIO IN
– connect to AUDIO OUT of an audio source

VIDEO IN
– connect to VIDEO OUT of a video source

Display front Panel



REC
– light appears during recording, it flashes when a recording is paused

DVD (green light)
– light appears when DVD/VCR in DVD mode. You can only watch DVDs when the red DVD OUTPUT light is on.

VIDEO (green light)
– light appears when DVD/VCR in VCR mode. You can only watch tapes when the green VCR OUTPUT light is on.

TIMER
– light appears when DVD/VCR is in standby mode or off for a timer recording/One-Touch Recording

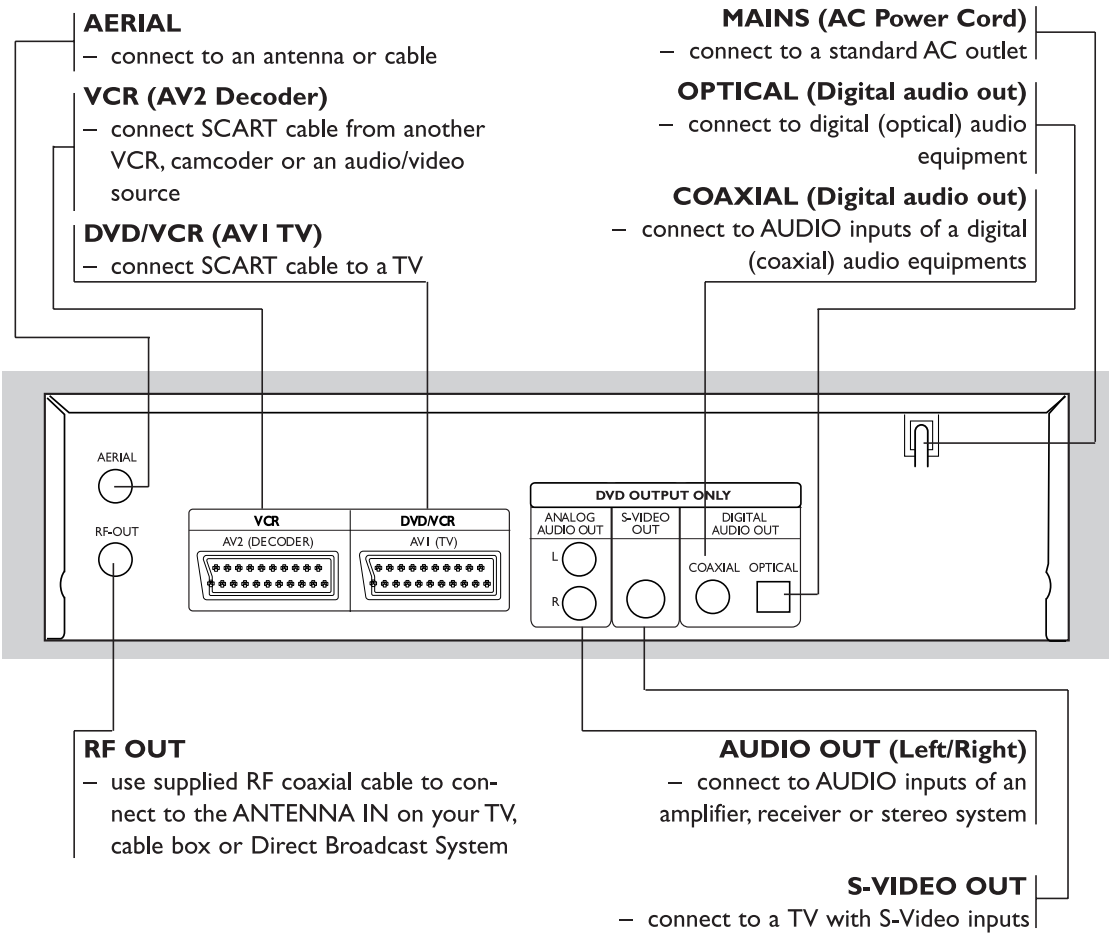
CST.IN
– light appears when a tape is in the DVD/VCR

STANDBY-ON
– light appears when power is on

Display Message

P-ON	Power is turning on.
- - - - -	Appears after the disc tray closes if the tray is empty, if there is an error reading the disc, or if an unacceptable disc is installed.
OPEN	Tray is opening or is open.
CLOSE	Tray is closing. This also may appear as the Player tries to load a Disc.
Load	Disc is loading.
P-OFF	Power is turning off.

Rear Panel


AERIAL
– connect to an antenna or cable
VCR (AV2 Decoder)
– connect SCART cable from another VCR, camcoder or an audio/video source
DVD/VCR (AV1 TV)
– connect SCART cable to a TV
MAINS (AC Power Cord)
– connect to a standard AC outlet
OPTICAL (Digital audio out)
– connect to digital (optical) audio equipment
COAXIAL (Digital audio out)
– connect to AUDIO inputs of a digital (coaxial) audio equipments
AERIAL
RF-OUT
VCR
AV2 (DECODER)
DVD/VCR
AV1 (TV)
DVD OUTPUT ONLY
ANALOG AUDIO OUT
L
R
S-VIDEO OUT
DIGITAL AUDIO OUT
COAXIAL
OPTICAL
RF OUT
– use supplied RF coaxial cable to connect to the ANTENNA IN on your TV, cable box or Direct Broadcast System
AUDIO OUT (Left/Right)
– connect to AUDIO inputs of an amplifier, receiver or stereo system
S-VIDEO OUT
– connect to a TV with S-Video inputs

Caution: Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

Remote Control

TIMER SET
– to put the DVD/VCR into standby mode for a timer recording

SETUP
– to access or remove the DVD setup menu (DVD)
AUDIO
– to choose audio languages or sound modes (DVD)
– to choose sound modes (VCR)
SUBTITLE
– subtitle language DVD selector (DVD)
ANGLE
– select DVD camera angle (DVD)

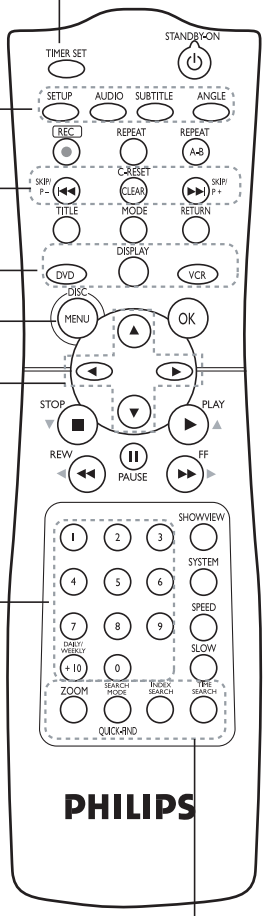
SKIP/P (I◄◄/ + /►►I/ –)
– to skip chapter/tracks (DVD)
– to change TV channels (VCR)
C.RESET/CLEAR
– to reset the setting (DVD)
– to reset the counter (VCR)

DVD
– press before using the remote control for DVD features
DISPLAY
– to access or remove the display screen during DVD or Audio CD playback(DVD)
– to access or remove VCR's on-screen status display(VCR)
VCR
– press before using the remote control for VCR features

DISC MENU
– to display the menu of the DVD disc or to access VCR menu
◄ ► ▲ ▼
– (left/right/up/down) select an item in the menu (DVD)

0-9 numerical key pad/+10
– select numbered items in a menu (DVD)
– use +10 button to enter number 10 and above (DVD)
DAILY/WEEKLY
– Press to select once, daily, everyday, or weekly when you programme the automatic timer recording using the SHOWVIEW system (VCR)

ZOOM
– enlarge DVD video image (DVD)
SEARCH MODE/QUICK-FIND
– to access or remove search display (DVD)
– to skip to the beginning of next programme(VCR)
INDEX SEARCH
– to fast forward or rewind the tape at index number (VCR)
TIME SEARCH
– to fast forward or rewind the tape at specific length of time (VCR)



Remote Control (cont'd)

STANDBY-ON ⏻
– switch DVD/VCR ON or OFF

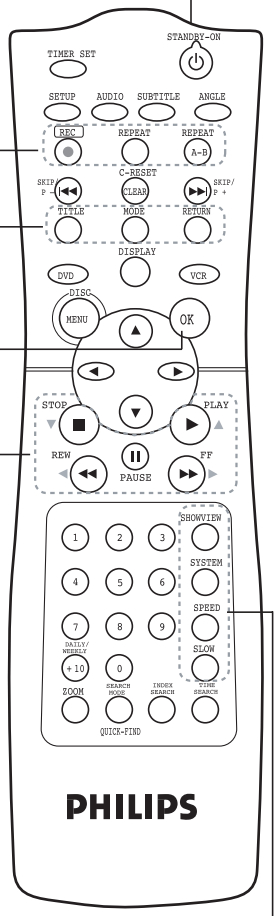
REC
– press once to start recording or repeatedly to start (VCR)
REPEAT
– repeat chapter, track, title, disc (DVD)
REPEAT (A-B)
– repeat a specific segment (DVD)

TITLE
– to display title menu of a disc (DVD)
MODE
– to set up programmed or random playback (Audio CD) (DVD)
RETURN
– to return previous or remove setup menu (DVD)

OK
– acknowledge menu selection (DVD)

STOP (■ / ▼)
– to stop a DVD disc playback (DVD)
– to stop playback, recording or to select an item in the VCR menu (VCR)
PLAY (► / ▲)
– to start a DVD disc playback (DVD)
– to start a tape playback or to select an item in the VCR menu (VCR)
REW (◄◄ / ◄)
– to view DVD picture in fast reverse motion (DVD)
– to rewind the tape (VCR)
PAUSE (❚❚)
– pause playback temporarily / frame-by-frame playback (DVD)
– pause playback and during recording temporarily (VCR)
FF (►► / ►)
– to view DVD picture in fast forward motion (DVD)
– to fast forward the tape (VCR)

SHOWVIEW
– to programme timer recording with the SHOWVIEW system (VCR)
SYSTEM
– Doesn't work in this model
SPEED
– to select VCR's recording speed (SP or LP) (VCR)
SLOW
– to view tape playback in slow motion (VCR)



Functional Overview

Front Panel

STANDBY-ON
– to switch the player to ON or OFF

TIMER
– to put the DVD/VCR into standby mode for a timer recording

PROG + –
– In VCR mode, to change TV channels, to adjust tracking during playback or to remove vertical jitter in a still picture

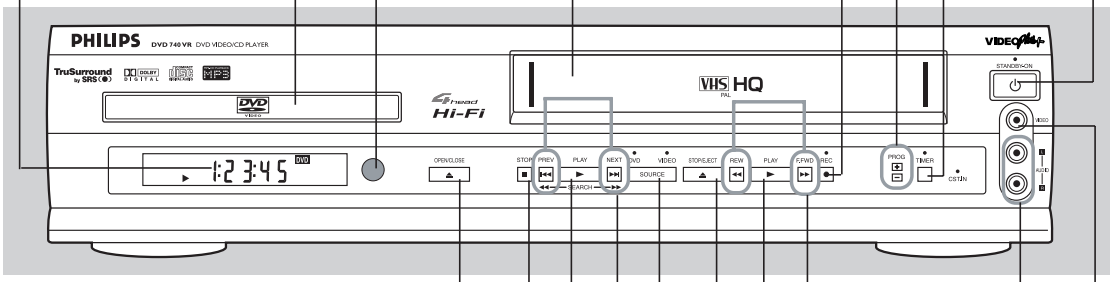
REC (RECORD)
– Press once to start recording, repeatedly to start an One-Touch Recording

DISPLAY
– shows the current status of the player

Disc Tray
– insert a disc here

Remote Sensor
– receive signals from remote control

Cassette Compartment
– insert a tape here



SOURCE (OUTPUT)
– to select between DVD and VCR mode

|◄◄ PREV / ►►| NEXT (DVD)
– goes to previous or next chapter or track during playback; press and hold for three seconds for a forward and reverse search

► PLAY (DVD)
– to start, pause or resume disc playback

■ STOP (DVD)
– to stop playback

▲ OPEN/CLOSE
– to open/close the disc tray

▲ STOP/EJECT (VCR)
– when playback is stopped, press to eject the tape

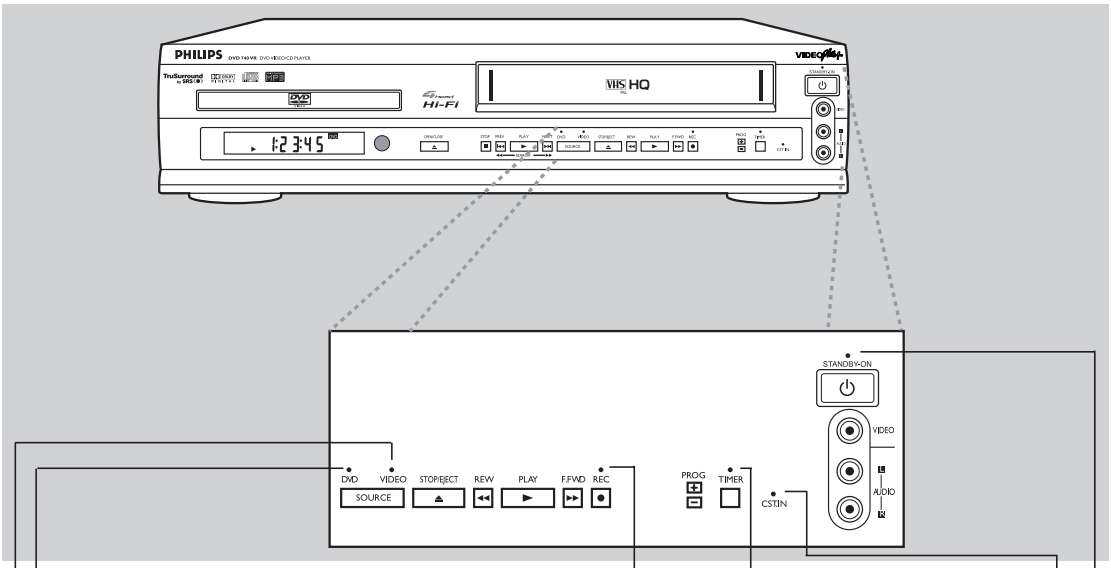
► PLAY (VCR)
– to play or pause a tape

◄◄ REW / ►► F.FWD (VCR)
– rewind or fast forward at high speed during playback is stopped

AUDIO IN
– connect to AUDIO OUT of an audio source

VIDEO IN
– connect to VIDEO OUT of a video source

Display front Panel



REC
– light appears during recording, it flashes when a recording is paused

DVD (green light)
– light appears when DVD/VCR in DVD mode. You can only watch DVDs when the red DVD OUTPUT light is on.

VIDEO (green light)
– light appears when DVD/VCR in VCR mode. You can only watch tapes when the green VCR OUTPUT light is on.

TIMER
– light appears when DVD/VCR is in standby mode or off for a timer recording/One-Touch Recording

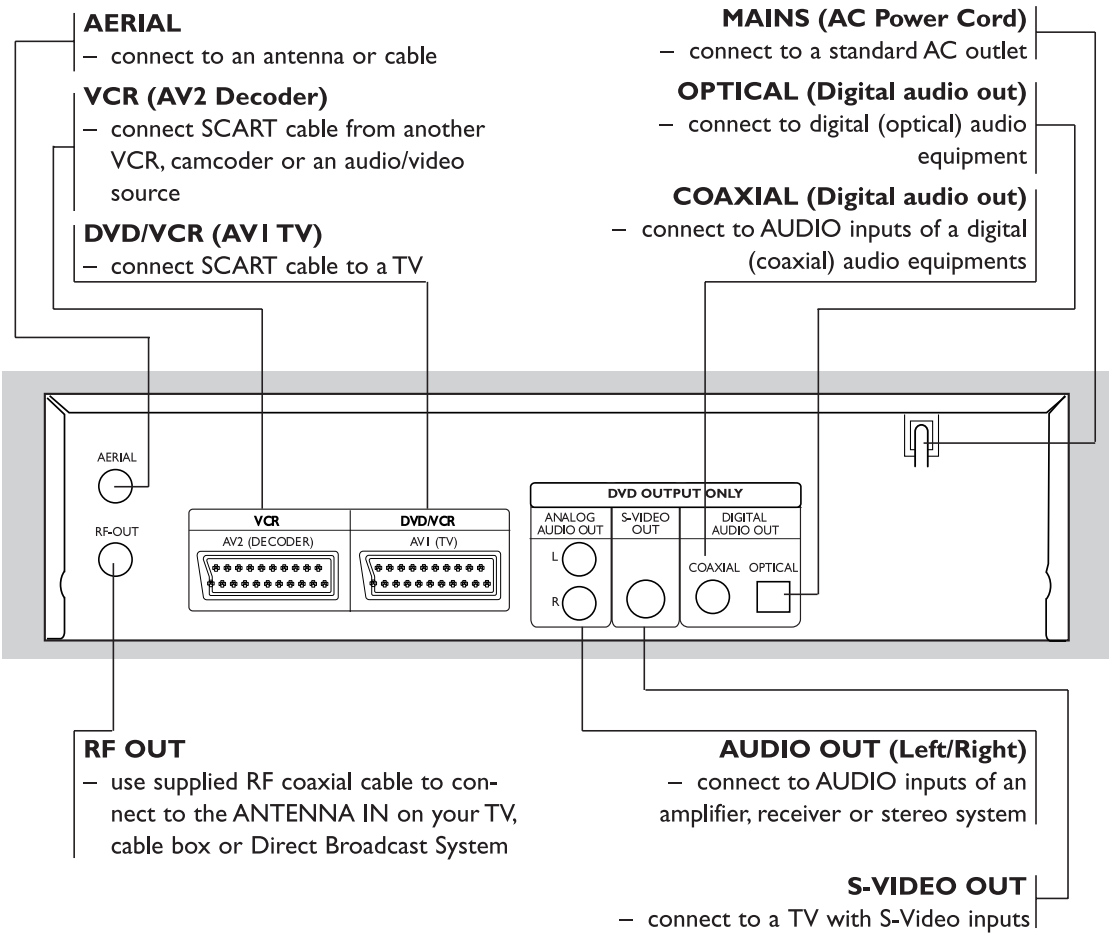
CST.IN
– light appears when a tape is in the DVD/VCR

STANDBY-ON
– light appears when power is on

Display Message

P-ON	Power is turning on.
- - - -	Appears after the disc tray closes if the tray is empty, if there is an error reading the disc, or if an unacceptable disc is installed.
OPEN	Tray is opening or is open.
CLOSE	Tray is closing. This also may appear as the Player tries to load a Disc.
Load	Disc is loading.
P-OFF	Power is turning off.

Rear Panel


AERIAL
– connect to an antenna or cable
VCR (AV2 Decoder)
– connect SCART cable from another VCR, camcoder or an audio/video source
DVD/VCR (AV1 TV)
– connect SCART cable to a TV
MAINS (AC Power Cord)
– connect to a standard AC outlet
OPTICAL (Digital audio out)
– connect to digital (optical) audio equipment
COAXIAL (Digital audio out)
– connect to AUDIO inputs of a digital (coaxial) audio equipments
AERIAL
RF-OUT
VCR
AV2 (DECODER)
DVD/VCR
AV1 (TV)
DVD OUTPUT ONLY
ANALOG AUDIO OUT
L
R
S-VIDEO OUT
DIGITAL AUDIO OUT
COAXIAL
OPTICAL
RF OUT
– use supplied RF coaxial cable to connect to the ANTENNA IN on your TV, cable box or Direct Broadcast System
AUDIO OUT (Left/Right)
– connect to AUDIO inputs of an amplifier, receiver or stereo system
S-VIDEO OUT
– connect to a TV with S-Video inputs

Caution: Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

Remote Control

TIMER SET
– to put the DVD/VCR into standby mode for a timer recording

SETUP
– to access or remove the DVD setup menu (DVD)
AUDIO
– to choose audio languages or sound modes (DVD)
– to choose sound modes (VCR)
SUBTITLE
– subtitle language DVD selector (DVD)
ANGLE
– select DVD camera angle (DVD)

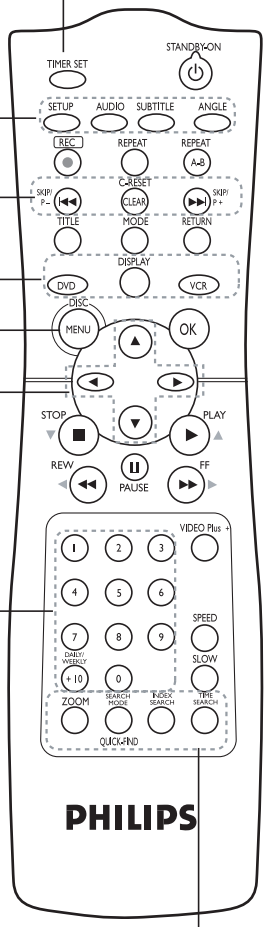
SKIP/P (I◄◄/ + /►►I/ –)
– to skip chapter/tracks (DVD)
– to change TV channels (VCR)
C.RESET/CLEAR
– to reset the setting (DVD)
– to reset the counter (VCR)

DVD
– press before using the remote control for DVD features
DISPLAY
– to access or remove the display screen during DVD or Audio CD playback(DVD)
– to access or remove VCR's on-screen status display(VCR)
VCR
– press before using the remote control for VCR features

DISC MENU
– to display the menu of the DVD disc or to access VCR menu
◄ ► ▲ ▼
– (left/right/up/down) select an item in the menu (DVD)

0-9 numerical key pad/+10
– select numbered items in a menu (DVD)
– use +10 button to enter number 10 and above (DVD)
DAILY/WEEKLY
– Press to select once, daily, everyday, or weekly when you programme the automatic timer recording using the VIDEO Plus+ system (VCR)

ZOOM
– enlarge DVD video image (DVD)
SEARCH MODE/QUICK-FIND
– to access or remove search display (DVD)
– to skip to the beginning of next programme(VCR)
INDEX SEARCH
– to fast forward or rewind the tape at index number (VCR)
TIME SEARCH
– to fast forward or rewind the tape at specific length of time (VCR)



Remote Control (cont'd)

STANDBY-ON ⏻
– switch DVD/VCR ON or OFF

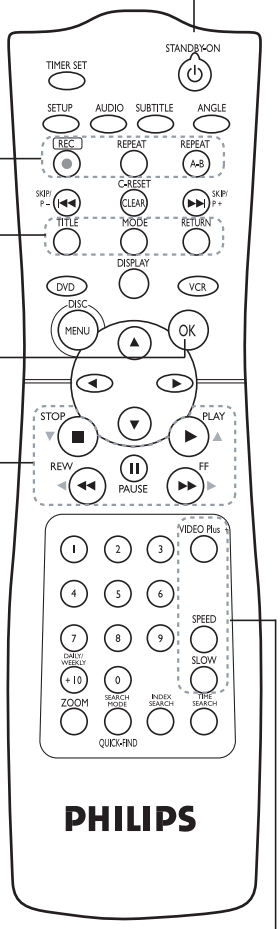
REC
– press once to start recording or repeatedly to start (VCR)
REPEAT
– repeat chapter, track, title, disc (DVD)
REPEAT (A-B)
– repeat a specific segment (DVD)

TITLE
– to display title menu of a disc (DVD)
MODE
– to set up programmed or random playback (Audio CD) (DVD)
RETURN
– to return previous or remove setup menu (DVD)

OK
– acknowledge menu selection (DVD)

STOP (■ / ▼)
– to stop a DVD disc playback (DVD)
– to stop playback, recording or to select an item in the VCR menu (VCR)
PLAY (► / ▲)
– to start a DVD disc playback (DVD)
– to start a tape playback or to select an item in the VCR menu (VCR)
REW (◄◄ / ◄)
– to view DVD picture in fast reverse motion (DVD)
– to rewind the tape (VCR)
PAUSE (❚❚)
– pause playback temporarily / frame-by-frame playback (DVD)
– pause playback and during recording temporarily (VCR)
FF (►► / ►)
– to view DVD picture in fast forward motion (DVD)
– to fast forward the tape (VCR)

VIDEO Plus+
– to programme timer recording with the VIDEO Plus+ system (VCR)
SPEED
– to select VCR's recording speed (SP or LP) (VCR)
SLOW
– to view tape playback in slow motion (VCR)



SIGNAL NAME ABBREVIATIONS

Signal Name	Function
8POUT-1	SCART 1 8Pin Output Control Signal
8POUT-2	SCART 2 8Pin Output Control Signal
A-COM	Audio Head Common
A-MODE	Hi-Fi Tape Detection Signal
A-MUTE-H	Audio Mute Control Signal (Mute = “H”)
A-IN(L)-F	Audio Signal Input (L)
A-IN(R)-F	Audio Signal Input (R)
A-OUT(L)-F	Audio Signal Output (L)
A-OUT(R)-F	Audio Signal Output (R)
A-PB/REC	Normal Audio Play Back/Record Signal
AE-H	Audio Erase Head
AFC	Automatic Frequency Control Signal
AGC	IF AGC Control Signal
AL+15V/+12V	Always +15V/+12V with AC Plug Connected
AL+5V	Always +5V with AC Plug Connected
AL+9V	Always +9V with AC Plug Connected
AL+12V	Always +12V with AC Plug Connected
AL-30V	Always -30V with AC Plug Connected
AMPC	CTL AMP Connected Terminal
AMPVcc	AMPVcc
AMPVREFIN	V-Ref for CTL AMP
AMPVss	AMPVss (GND)
AVcc	A/D Converter Power Input/ Standard Voltage Input
C	C Terminal
C-CONT	Capstan Motor Control Signal
C-F/R	Capstan Motor FWD/REV Control Signal (FWD=”L”/REV=”H”)
C-FG	Capstan Motor Rotation Detection Pulse
C-POWER-SW	Capstan Power Switching Pulse

Signal Name	Function
C-ROTA	Color Phase Rotary Changeover SIgnal
C-SYNC	Composite Synchronized Pulse
CAS LED	“CASSETTE” LED Signal Output
CLKSEL	Clock Select (GND)
CTL (+)	Playback/Record Control Signal(+)
CTL (-)	Playback/Record Control Signal (-)
CTLAMPout	To Monitor for CTL AMP Output
D-CONT	Drum Motor Control Signal
D-FG	Drum Motor Rotation Detection Pulse
D-PG	Drum Motor Pulse Generator
D-REC-H	Delayed Record Signal
D-V- SYNC	Dummy V-sync Output
DAVN-L	VPS/PDC Data Receive = “L”
DRV-CLK	LED Clock Driver IC Control Clock
DRV-DATA	LED Clock Driver IC Control Data
DRV-STB	LED Clock Driver IC Chip Select Signal
DVD LED	“DVD” LED Signal Output
DVD-8PIN-IN	SCART 8Pin DVD Input Control Signal
DVD-P-ON+3.3V	+3.3V at DVD Power-On Signal
DVD-P-ON+5V	+5V at DVD Power-On Signal
DVD-P-ON+12V	+12V at DVD Power-On Signal
DVD-POWER	DVD Power Control Signal
DVD-POWER-MONITOR	DVD Power Monitor Signal (P-off="H", P-on="L")
DVD-B-OUT	DVD Component Video Signal (blue)
DVD-G-OUT	DVD Component Video Signal (green)
DVD-R-OUT	DVD Component Video Signal (red)
END-S	Tape End Position Detect Signal
FE-H GND	Ground for Full Erase Head
FF/REW-L	CTL Amp Gain Switching Signal (FF/REW=”L”)
FSC-IN [4.43MHz]	4.43MHz Clock Input

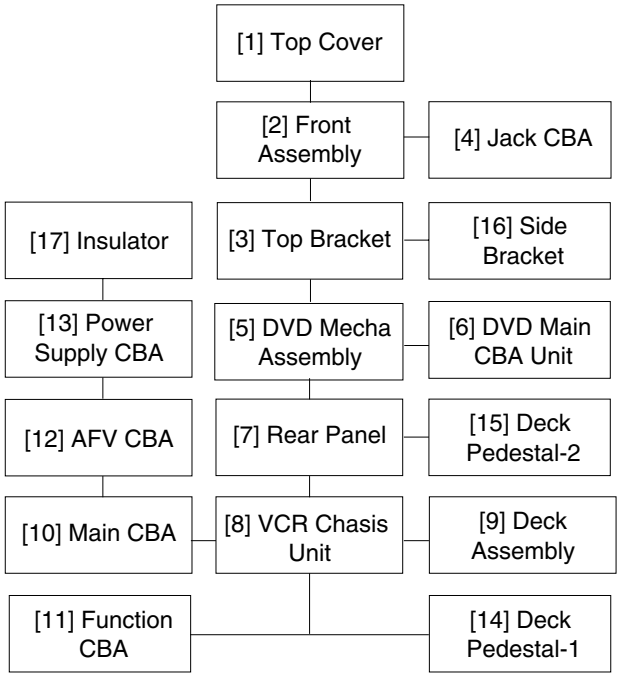
Signal Name	Function
FTV-IN	Comparator Input of Video Signal for Follow TV
H-A-COMP	Head Amp Comparator Signal
H-A-SW	Video Head Amp Switching Pulse
Hi-Fi-A (L)	Hi-Fi Audio Head (L)
Hi-Fi-A (R)	Hi-Fi Audio Head (R)
Hi-Fi-COM	Hi-Fi Audio Head Common
Hi-Fi-H-SW	Hi-Fi Audio Head Switching Pulse
HLF	LPF Connected Terminal (Slicer)
IIC-BUS- SCL	IIC BUS Control Clock
IIC-BUS- SDA	IIC BUS Control Data
JK1-8P-OUT-1	SCART 1 8Pin Output Control Signal
JK1-8P-OUT-2	SCART 2 8Pin Output Control Signal
KEY-1	Key Scan Input Signal 1
KEY-2	Key Scan Input Signal 2
LD-SW	Deck Mode Position Detector Signal
LM-FWD/REV	Loading Motor Control Signal
MOD-A	Modulator Audio Output Signal
MOD-V	Modulator Video Output Signal
N-A-PB	Normal Audio Playback
N-A-REC	Normal Audio Recording
OSCIN	Clock Input for letter size
OSCOUT	Clock Output for letter size
OSD-V-IN	OSD Video Signal Input
OSD-V-OUT	OSD Video Signal Output
OSDVss	OSDVss
OUTPUT-SELECT	Output Select
P-DOWN-L	Power Voltage Down Detector Signal
P-ON+44V	+44V at Power-On Signal
P-ON+5V	+5V at Power-On Signal
P-ON+9V	+9V at Power-On Signal
P-ON-H	Power On Signal at High
PG-DELAY	Video Head Switching Pulse Signal Adjusted Voltage
PG/LP	PG/LP
POW-SAF	P-ON Power Detection Input Signal

Signal Name	Function
REC LED	“REC” LED Signal Output
REC-SAF-SW	Recording Safety SW Detect (With Record tab=”L”/ With out Record tab=”H”)
REMOTE	Remote Control Sensor
RESET	System Reset Signal (Reset=”L”)
RF-SW	Video Head Switching Pulse
RGB-THROUGH	SCART 2 RGB Through Control Signal
S-REEL	Supply Reel Rotation Signal
SC2-IN	Input Signal from Pin 8 of SCART2
ST-S	Tape Start Position Detector Signal
T-REEL	Take Up Reel Rotation Signal
TIMER LED	“TIMER” LED Signal Output
TIMER+5V	+5V at Timer
TU-AUDIO	Tuner Audio Input Signal
TU-VIDEO	Tuner Video Input Signal
V-ENV	Video Envelope Comparator Signal
Vcc	Vcc
VCR LED	“VCR” LED Signal Output
V-IN	Video Signal Input
V-OUT	Video Signal Output
VIDEO-IN	Video Signal Input
VIDEO-OUT	Video Signal Output
Vss	Vss(GND)
X-IN	Main Clock Input
X-OUT	Main Clock Input
XC-IN	Sub Clock
XC-OUT	Sub Clock

CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.



2. Disassembly Method

ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	Note
[1]	Top Cover	D1	8(S-1)	-
[2]	Front Assembly	D2	*CN505, *2(L-1), Tray Panel, *7(L-2)	1-1 1-2 1-3 1-4 1-5 1-6 1-7 1-8
[3]	Top Bracket	D2	4(S-2)	-
[4]	Jack CBA	D3	3(S-3)	-
[5]	DVD Mecha Assembly	D4	3(S-4), *CN501, *CN701	-
[6]	DVD Main CBA Unit	D5	3(S-5), *CN101, *CN401	2 2-1 2-2 2-3 3
[7]	Rear Panel	D6	3(S-6), 3(S-7)	-
[8]	VCR Chassis Unit	D7	*CN001, *CN002, 5(S-8), 5(S-9)	-
[9]	Deck Assembly	D8	Desolder, 2(S-10)	4,5
[10]	Main CBA	D8	----------	-
[11]	Function CBA	D8	Desolder, *CN2002	-
[12]	AFV CBA	D8	Desolder	-
[13]	Power Supply CBA	D9	3(S-11), Bracket, *(L-3)	-
[14]	Deck Pedestal-1	D9	6(S-12), 3(W-1)	-
[15]	Deck Pedestal-2	D9	(S-13)	-
[16]	Side Bracket	D9	(S-14)	-
[17]	Insulator	D9	----------	-
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

(1): Identification (location) No. of parts in the figures

(2): Name of the part

(3): Figure Number for reference

(4): Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P=Spring, L=Locking Tab, S=Screw, CN=Connector, W=Washer
*=Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
2(L-2) = two Locking Tabs (L-2)

(5): Refer to “Reference Notes.”

Reference Notes

CAUTION 1: Locking Tabs (L-1) and (L-2) are fragile. Be careful not to break them.

1-1. Connect the wall plug to an AC outlet and press the OPEN/CLOSE button to open the Tray.

1-2. Remove the Tray Panel by releasing two Locking Tabs (L-1).

1-3. Press the OPEN/CLOSE button again to close the Tray.

1-4. Press the POWER button to turn the power off.

1-5. Unplug an AC cord.

1-6. Disconnect connector CN505.

1-7. Remove Screw (S-1A).

1-8. Release seven Locking Tabs (L-2) (to do this, first release five Locking Tabs (A) at the side and top, and then release two Locking Tabs (B) at the bottom.)

CAUTION 2: Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc., during unpacking or repair work.

To avoid damage of pickup follow next procedures.

2-1. Slide the pickup unit as shown in Fig. D5.

2-2. Short the three short lands of FPC cable with solder before removing the FFC cable (CN101) from it. If you disconnect the FFC cable (CN101), the laser diode of pickup will be destroyed. (Fig. D5)

2-3. Disconnect Connector (CN401). Remove three Screws (S-5) and lift the DVD Main CBA Unit. (Fig. D5)

CAUTION 3: When reassembling, confirm the FFC cable (CN101) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D5)

4. When reassembling, solder wire jumpers as shown in Fig. D8.

5. Before installing the Deck Assembly, be sure to place the pin of LD-SW on Main CBA as shown in Fig. D8. Then, install the Deck Assembly while aligning the hole of Cam Gear with the pin of LD-SW, the shaft of Cam Gear with the hole of LD-SW as shown in Fig. D8.

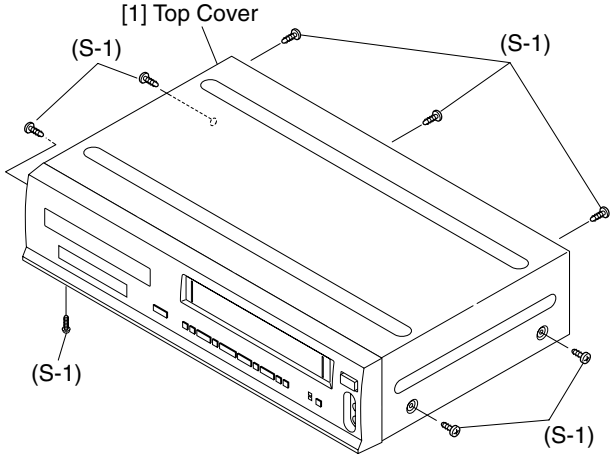


Fig. D1

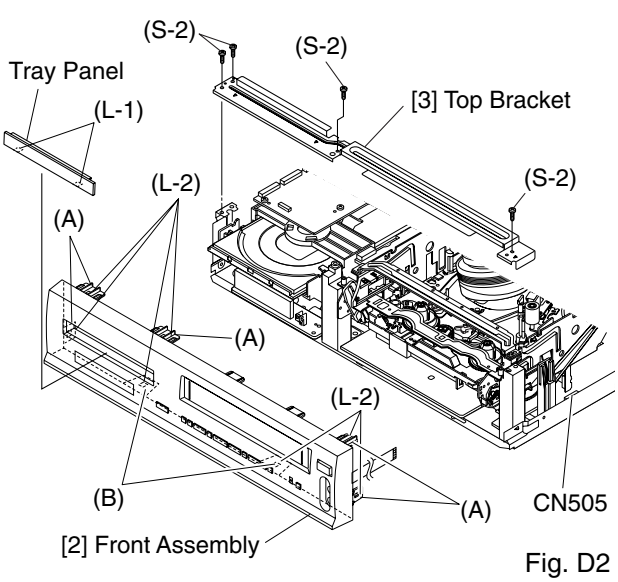


Fig. D2

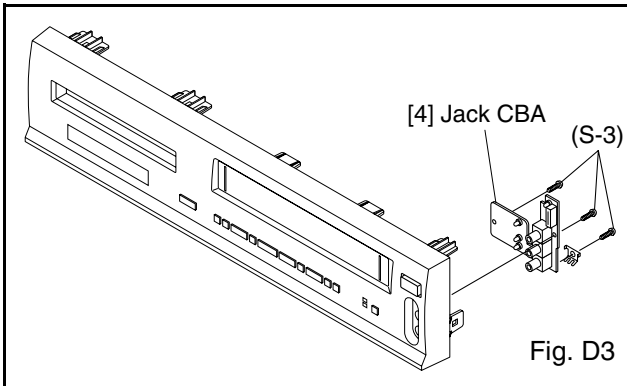


Fig. D3

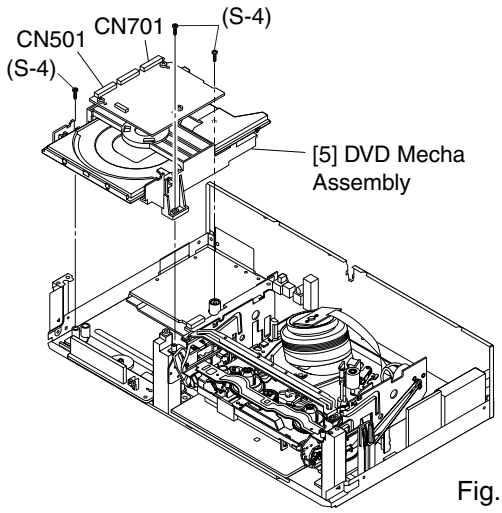


Fig. D4

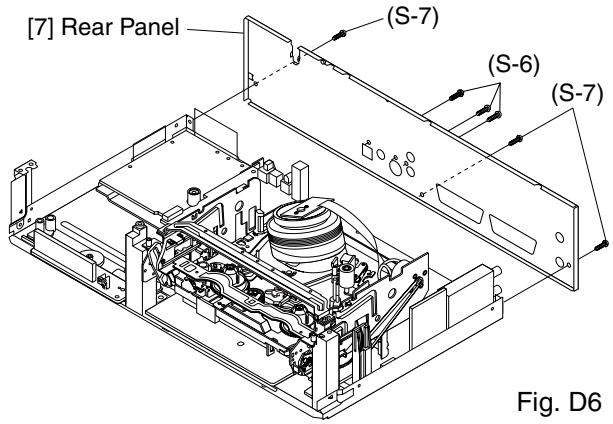
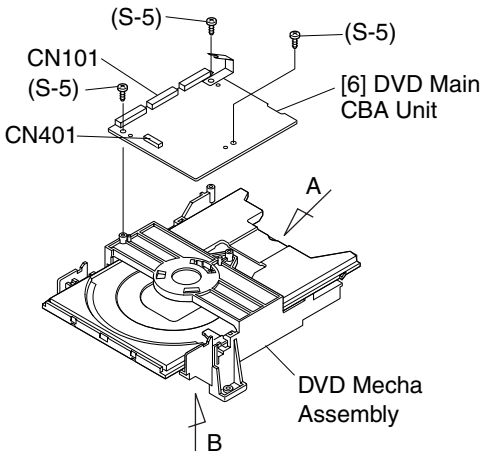
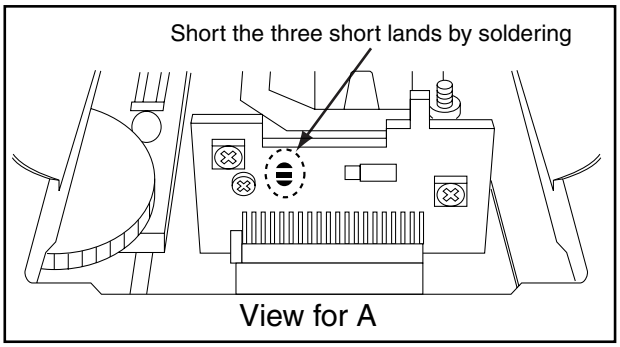


Fig. D6





OR

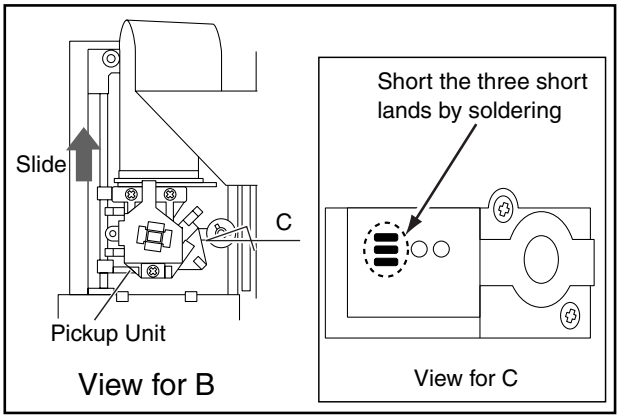


Fig. D5

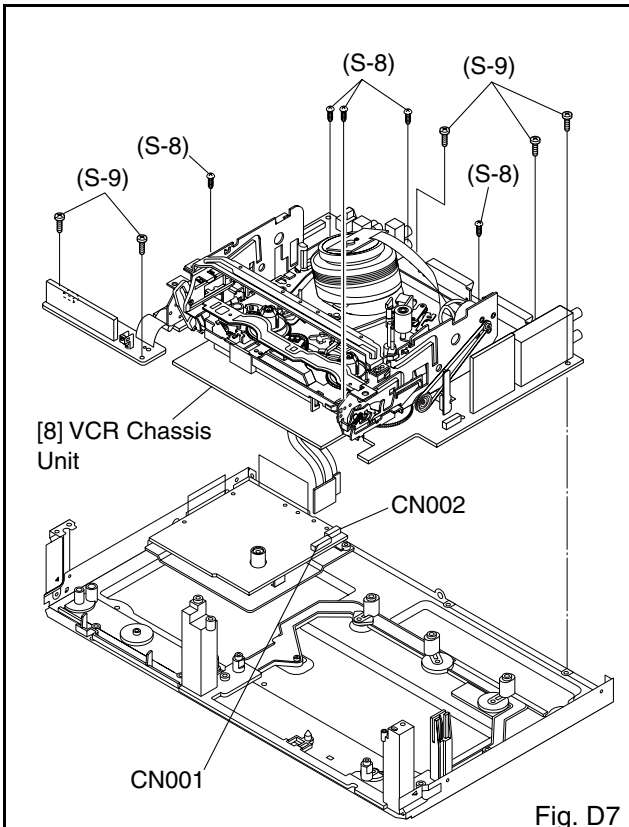
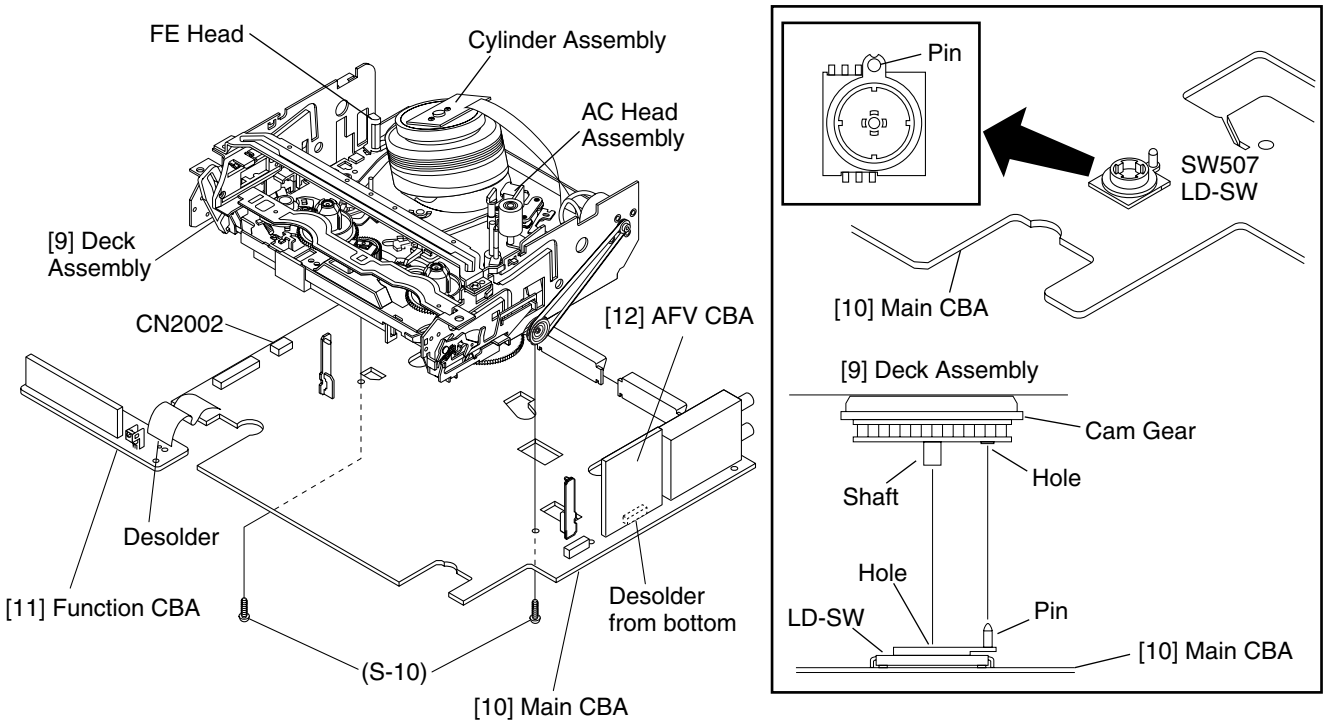
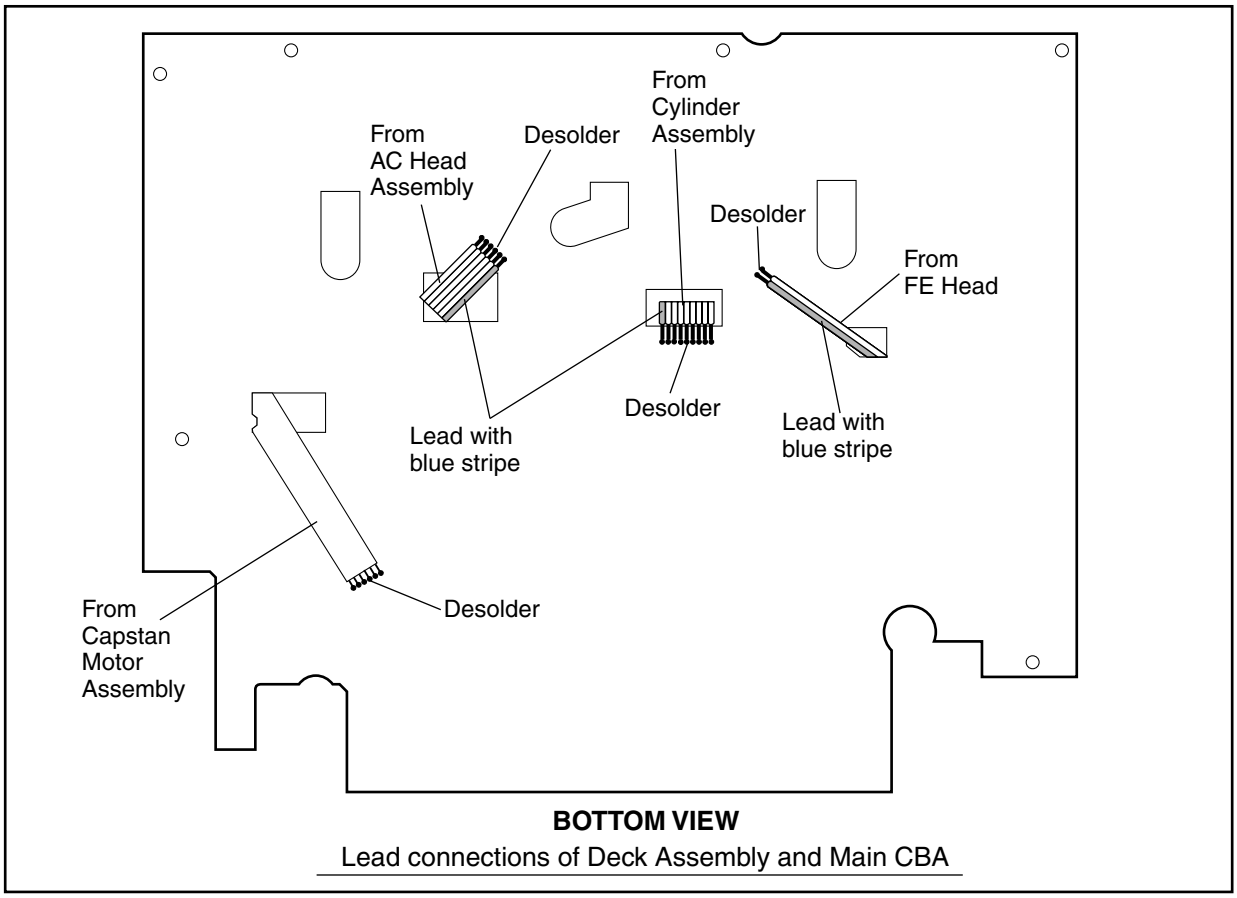


Fig. D7





BOTTOM VIEW

Lead connections of Deck Assembly and Main CBA

Fig. D8

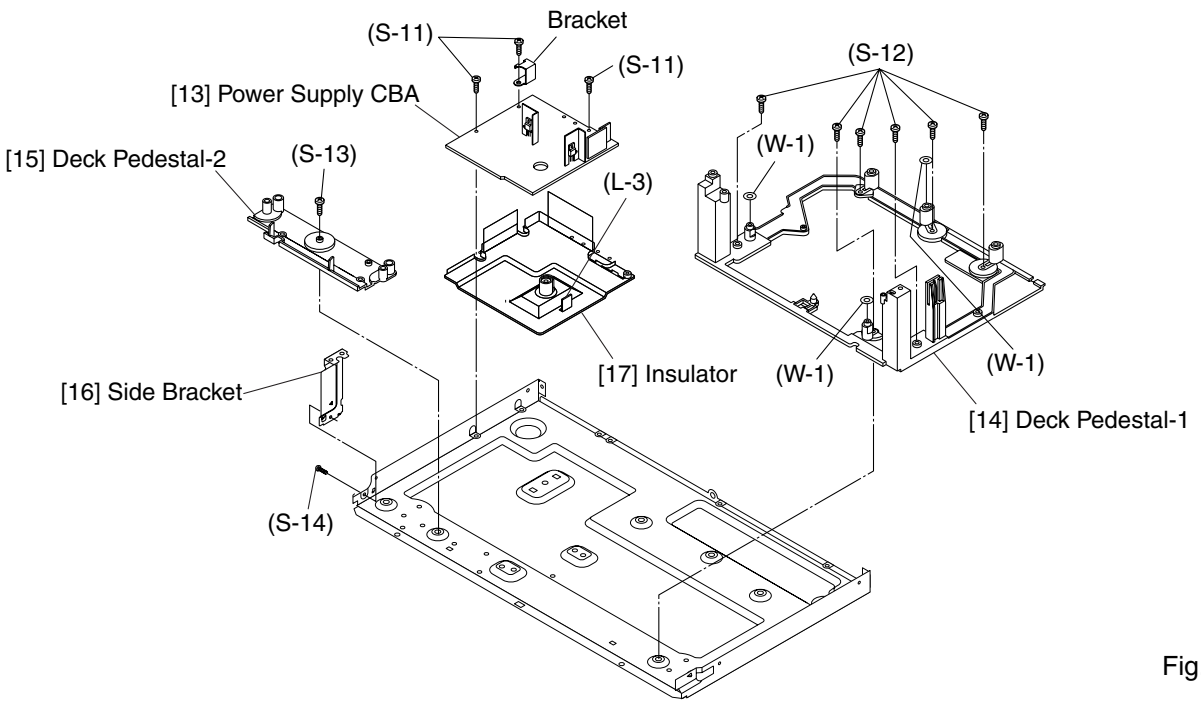
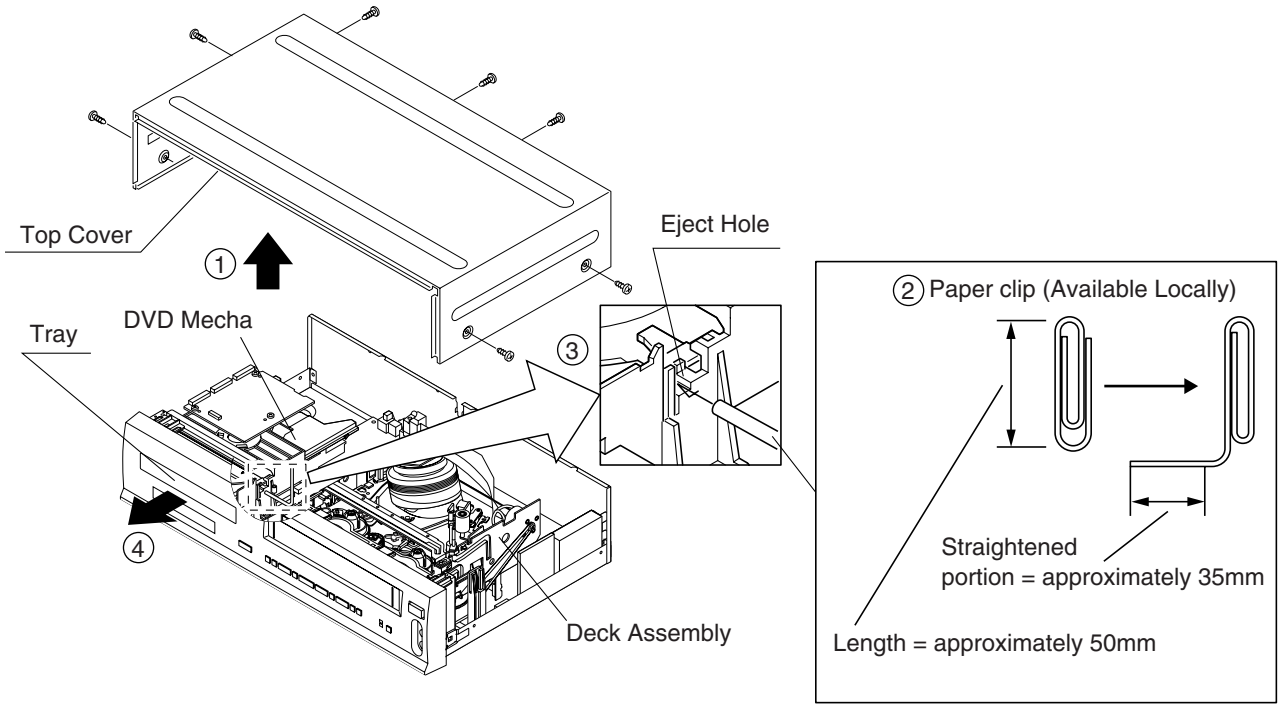


Fig. D9

HOW TO MANUAL EJECT

1. Remove the Top Case.
2. Make a tool from a paper clip, etc., (length = approximately 50 mm, maximum diameter = approximately 3 mm) as shown below.
3. Insert the tool into the manual eject hole on the DVD Mecha. Then, push it until the tray is ejected.



ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note: "CBA" is an abbreviation for "Circuit Board Assembly."

NOTE:

1. Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to do these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.
2. To perform these alignment / confirmation procedures, make sure that the tracking control is set in the center position: Press either "▼" or "▲" button on the remote control unit first, then the "PLAY" button (Front Panel only).

Test Equipment Required

1. Oscilloscope: Dual-trace with 10:1 probe,
   V-Range: 0.001~50V/Div.,
   F-Range: DC~AC-20MHz
2. Alignment Tape (FL6A)

Head Switching Position Adjustment

Purpose:

To determine the Head Switching point during playback.

Symptom of Misadjustment:

May cause Head Switching noise or vertical jitter in the picture.

Test point	Adj.Point	Mode	Input
TP751(V-OUT) TP302(RF-SW) GND	VR501 (Switching Point) (MAIN CBA)	PLAY (SP)	-----
Tape	**Measurement Equipment**	**Spec.**	
FL6A	Oscilloscope	6.5H±1H (412.7μs±60μs)	

Connections of Measurement Equipment

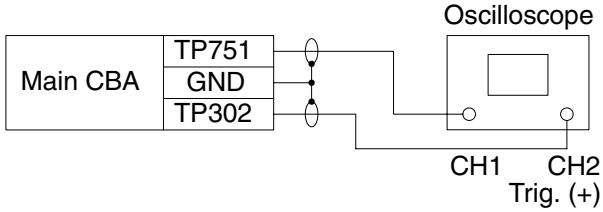
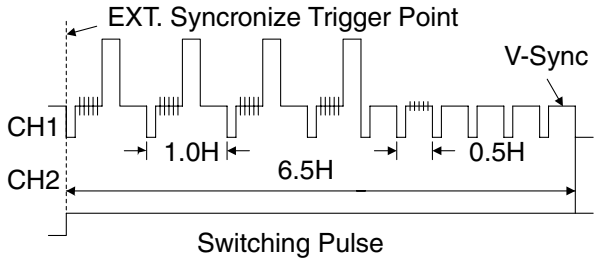


Figure 1



Reference Notes:

Playback the Alignment tape and adjust VR501 so that the V-sync front edge of the CH1 video output waveform is at the 6.5H(412.7μs) delayed position from the rising edge of the CH2 head switching pulse waveform.

FIRMWARE RENEWAL MODE

1. Turn the power on and remove the disc on the tray.
2. To put the DVD player into version up mode, press [9], [8], [7], [6], and [SEARCH MODE] buttons on the remote control unit in that order. The tray will open automatically.
   Fig. a appears on the screen and Fig. b appears on the VFD.

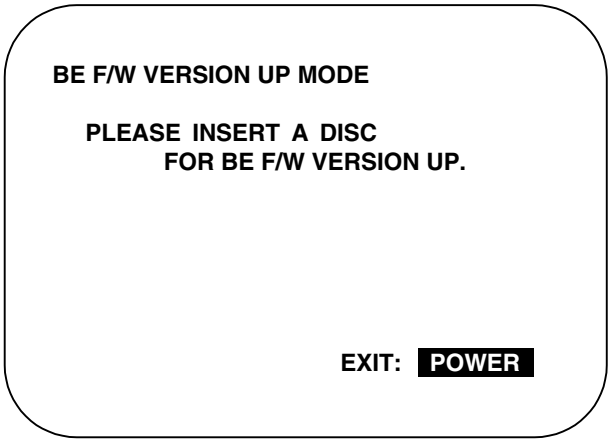


Fig. a Version Up Mode Screen

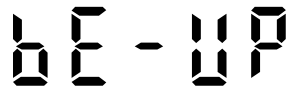


Fig. b VFD in Version Up Mode

   The DVD player can also enter the version up mode with the tray open. In this case, Fig. a will be shown on the screen while the tray is open.
3. Load the disc for version up. (For closing the tray, only the "OPEN/CLOSE" button is available.)
4. The DVD player enters the F/W version up mode automatically. Fig. c appears on the screen and Fig. d appears on the VFD.

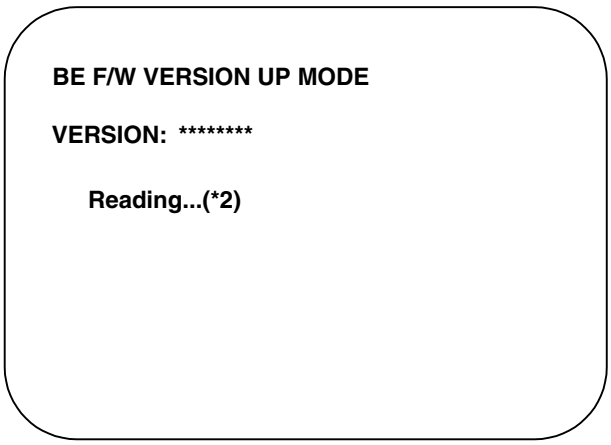


Fig. c Programming Mode Screen

Fig. d VFD in Programming Mode (Example)

   The appearance shown in (*2) of Fig. c is described as follows:

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the tray opens automatically. Fig. e appears on the screen and the checksum in (*3) of Fig. e appears on the VFD. (Fig. f)

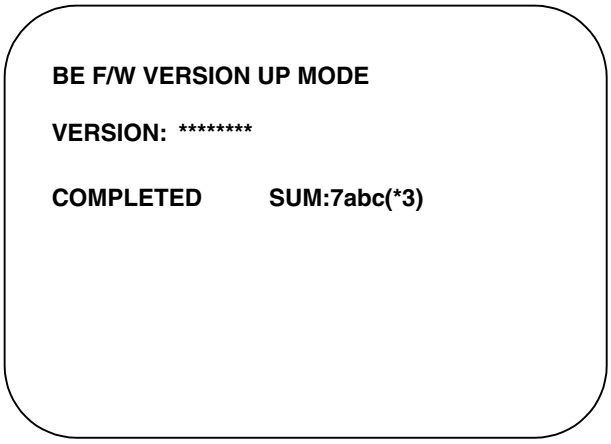


Fig. e Completed Program Mode Screen

Fig. f VFD upon Finishing the Programing Mode (Example)

   At this time, no buttons are available.
6. For tray opening, plug the AC cord into the AC outlet.
7. Turn the power on by pressing the power button and the tray will close.

BLOCK DIAGRAMS <VCR Section>

Servo/System Control Block Diagram

TEST POINT INFORMATION
- ⓘ :INDICATES A TEST POINT WITH A JUMPER WIRE ACROSS A HOLE IN THE PCB.
- ▭→ :USED TO INDICATE A TEST POINT WITH A COMPONENT LEAD ON FOIL SIDE.
- ⊘ :USED TO INDICATE A TEST POINT WITH NO TEST PIN.
- ● :USED TO INDICATE A TEST POINT WITH A TEST PIN.

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

"● " = SMD

(DECK ASSEMBLY)

AC HEAD ASSEMBLY
CONTROL HEAD
CL287 5 CTL(+) 6 CTL(-) CL504 5 6

SENSOR CBA
Q504 ST-S
Q503 END-S

CYLINDER ASSEMBLY
PG SENSOR
DRUM MOTOR M

CAPSTAN MOTOR
CAPSTAN MOTOR M

LOADING MOTOR M

CL502
12 C-F/R
11 AL+15V/+12V
10 AL+12V(1)
9 P-ON+5V
8 GND
7 C-FG
6 C-CONT
5 GND
4 D-FG
3 LM-FWD/REV
2 D-CONT
1 D-PG

MAIN CBA

SW507 LD-SW
AL+5V
TP502 END-S
Q506 T-REEL
PS502 S-REEL
TP503 CTL
Q510
AL+5V
D555 S-LED
AL+5V
VR501 SW-POINT
AL+5V
SW506 REC-SAFETY
TO POWER SUPPLY BLOCK

IC501 (SERVO/SYSTEM CONTROL)

TIMER+5V → Q515 RESET	34	RESET
TO DVD SYSTEM CONTROL BLOCK <DVD SECTION> REMOTE1	14	REMOCON-IN
AL+5V	9	LD-SW
CTL(+)	95	CTL(+)
CTL(-)	94	CTL(-)
ST-S	10	ST-S
END-S	4	END-S
T-REEL	80	T-REEL
S-REEL	79	S-REEL
CTL	97	CTL
FF/REW-L	84	FF/REW-L
PG-DELAY	2	PG-DELAY
REC-SAF-SW	31	REC-SAF-SW
C-F/R	78	C-F/R
C-FG	87	C-FG
C-CONT	76	C-CONT
D-FG	89	D-FG
LM-FWD/REV	81	LM-FWD/REV
D-CONT	77	D-CONT
D-PG	90	D-PG
C-POW-SW	66	C-POW-SW
P-ON-H	67	P-ON-H
P-DOWN-L	86	P-DOWN-L
KEY- 2	8	
POWER LED	23	
CAS LED	24	
TIMER LED	25	
KEY- 1	7	
REC LED	26	
DVD LED	29	
VCR LED	30	
A-MUTE-H	83	
Hi-Fi-H-SW	19	
A-MODE	61	
OUTPUT SELECT	74	
IIC-BUS SDA	72	
IIC-BUS SCL	71	
DAVN-L	20	
D-REC-H	65	
RF-SW	18	
C-ROTA	15	
D-V SYNC	13	
H-A-SW	16	
H-A-COMP	17	
V-ENV	6	

Q507
Q501
Q502
KEY SWITCH
TP501 SENS-INH

Q511 D508 REC
Q508 D506 DVD
Q509 D507 VCR
AL+5V

FRONT JACK CBA
CN505 2 KEY-2 6 POWER-LED 4 CAS-LED 5 TIMER-LED
CN651 2 6 4 5
KEY SWITCH
AL+5V
D651 POWER
D653 CAS
D652 TIMER
D654 STAND-BY

IC502 (MEMORY)
5 SDA
6 SCL

TO AUDIO BLOCK
IIC-BUS SDA
IIC-BUS SCL
A-MUTE-H

TO Hi-Fi AUDIO BLOCK
IIC-BUS SDA
IIC-BUS SCL
Hi-Fi-H-SW
A-MODE
OUTPUT SELECT

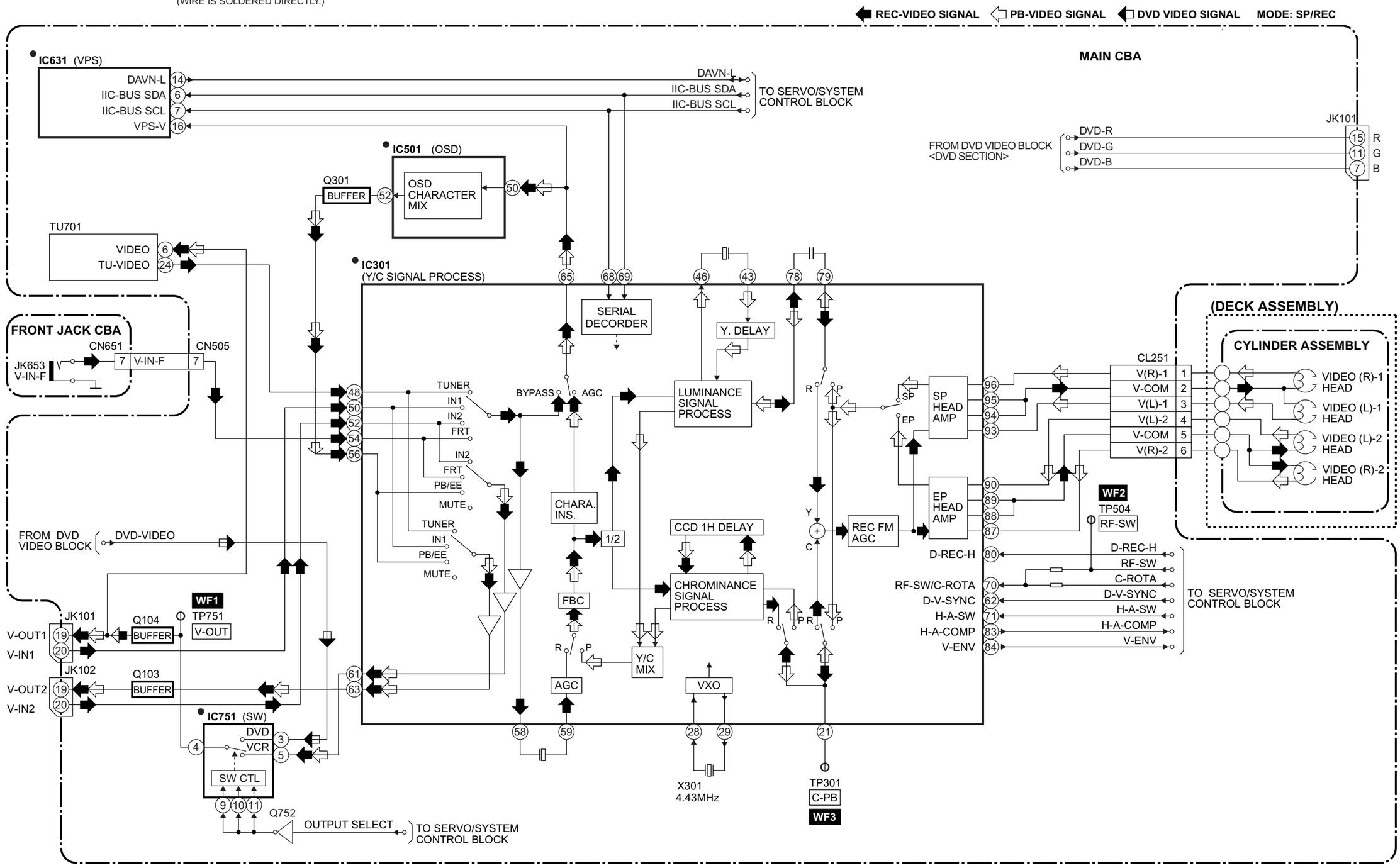
TO VIDEO BLOCK
IIC-BUS SDA
IIC-BUS SCL
DAVN-L
D-REC-H
RF-SW
C-ROTA
D-V SYNC
H-A-SW
H-A-COMP
V-ENV
OUTPUT SELECT

Video Block Diagram

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

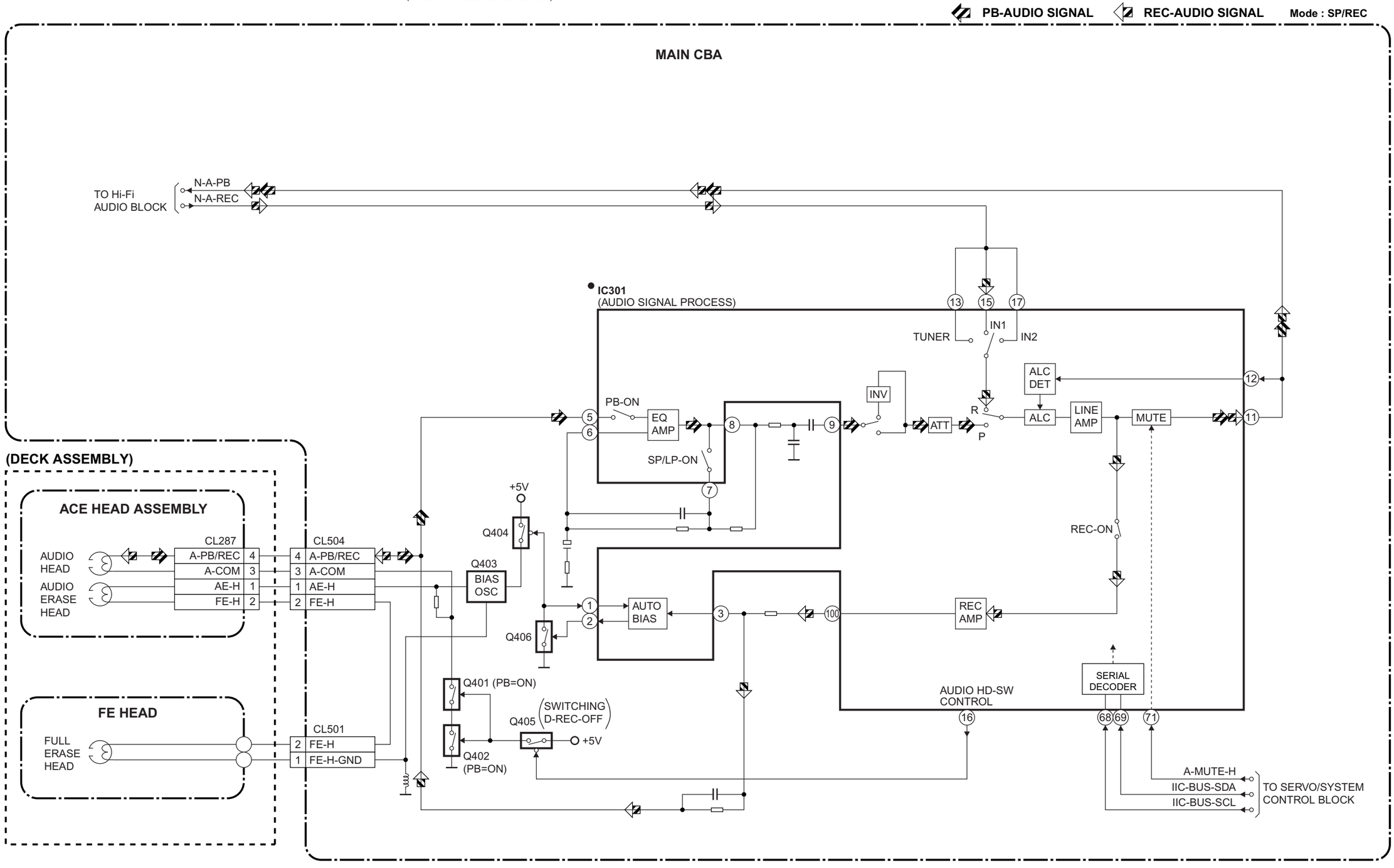
TEST POINT INFORMATION
- ⓘ :INDICATES A TEST POINT WITH A JUMPER WIRE ACROSS A HOLE IN THE PCB.
- ▭→ :USED TO INDICATE A TEST POINT WITH A COMPONENT LEAD ON FOIL SIDE.
- ⊘ :USED TO INDICATE A TEST POINT WITH NO TEST PIN.
- ● :USED TO INDICATE A TEST POINT WITH A TEST PIN.



Audio Block Diagram

"● " = SMD

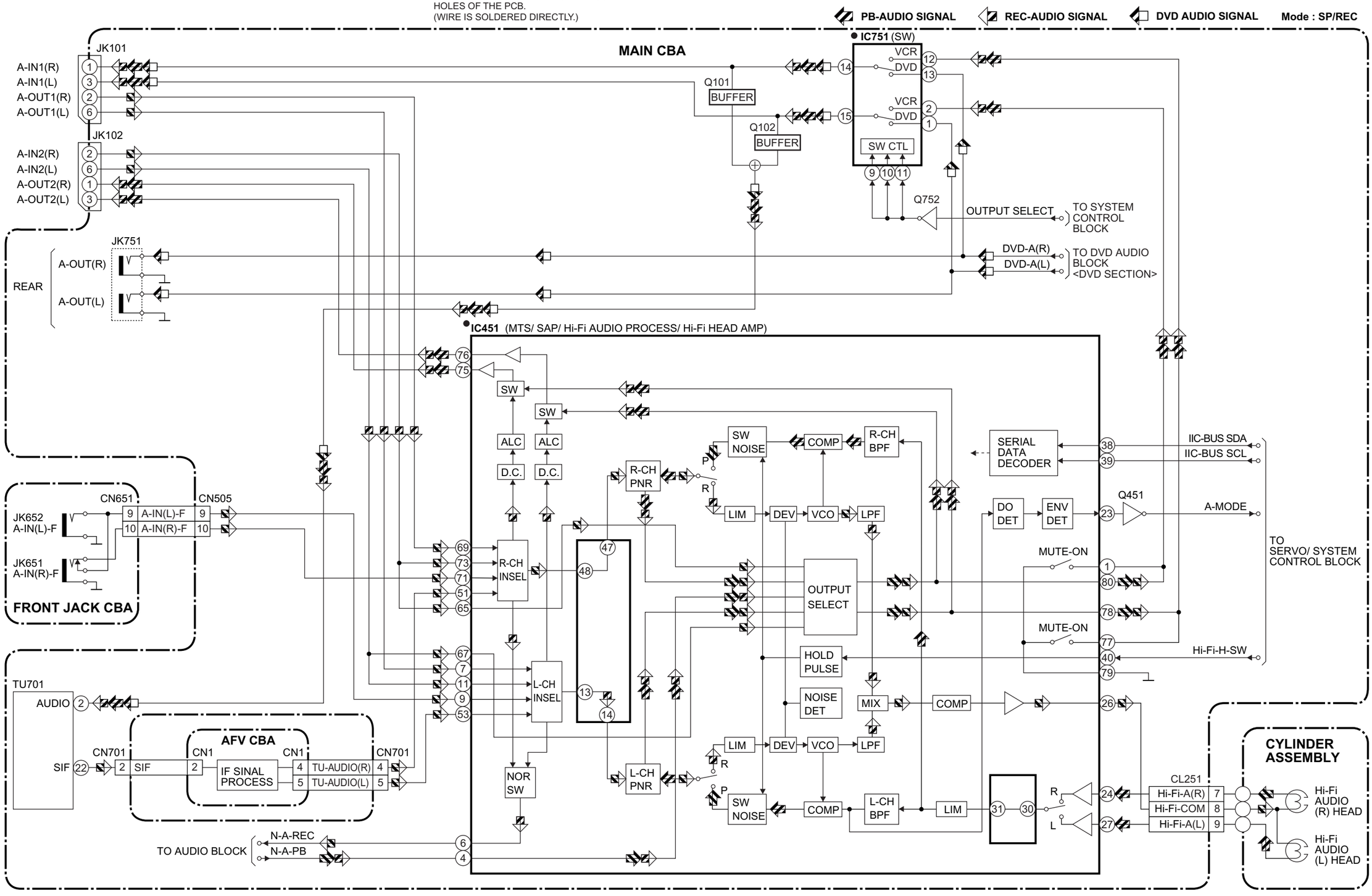
NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)



Hi-Fi Audio Block Diagram

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

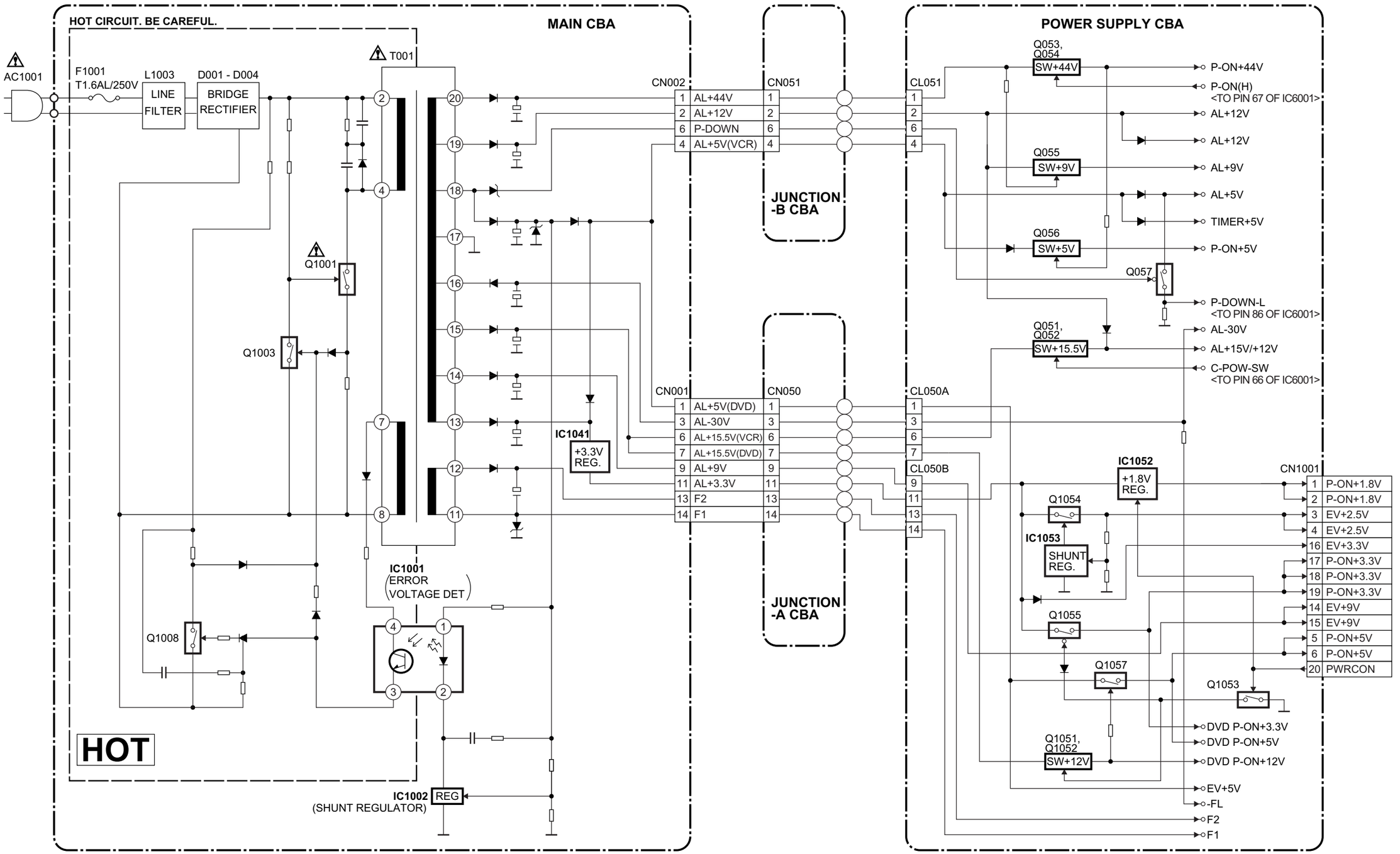


Power Supply Block Diagram

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE T1.6AL/250V FUSE.

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

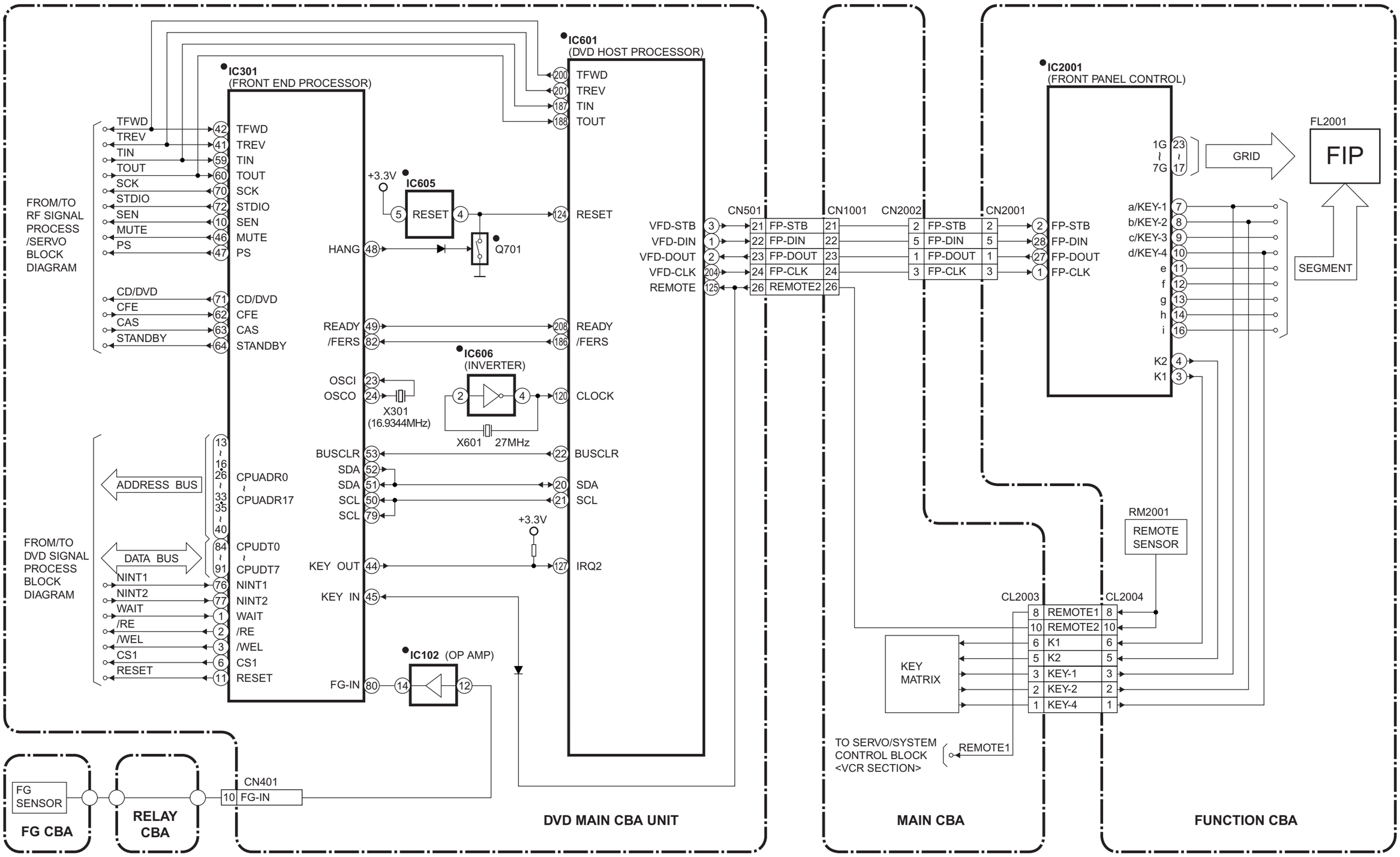


BLOCK DIAGRAMS < DVD Section >

DVD System Control Block Diagram

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)



RF Signal Process/Servo Block Diagram

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

DATA(VIDEO/AUDIO) SIGNAL
FOCUS SERVO SIGNAL
TRACKING SERVO SIGNAL
SLIDE SERVO SIGNAL
DISK SERVO SIGNAL

PICK-UP UNIT
DETECTOR
CN101
A 6
B 9
C 10
D 7
F 4
E 5
CD/DVD 21
CN101
CD-LD 20
DVD-LD 12
PD-MONI 11
GND(DVD-PD) 14
GND(LD) 13
GND(CD-PD) 19
Q102
AMP
AMP
Q101
IC103 (SW)
TS
FS
CN101
FS(+) 17
FS(-) 16
TS(+) 15
TS(-) 18

RELAY CBA
LOADING MOTOR
SPINDLE MOTOR
SLIDE MOTOR
CN401
LM(+) 1
LM(-) 2
SP(-) 6
SP(+) 7
SL(+) 9
SL(-) 8
TRAY-IN 3
GND 5
TRAY-OUT 4
TRAY -IN

SW CBA
TRAY-OUT

IC101 (RF SIGNAL PROCESS)
47
57
58
59
60
62
63
INPUT MATRIX
HOLD
VGA
EQ
VEL ADJ
BDO DET
OFTR DET
MIRROR DET
TRACKING BALANCE
TRACKING ERROR DET
FOCUS BALANCE
FOCUS ERROR DET
LPC AMP
4
2
3
1
SERIAL I/F
41
46
31
30
40
39
18
6
22
7
20
11
13
14
12

DVD MAIN CBA UNIT
TESTSG
ARF
NARF
FROM/TO DVD SIGNAL PROCESS BLOCK DIAGRAM
STANDBY
SCK
STDIO
SEN
CD/DVD

IC401 (SERVO DRIVE)
FOCUS MOTOR DRIVE
TRACKING MOTOR DRIVE
MUTE
LOADING MOTOR DRIVE
SPINDLE MOTOR DRIVE
SLIDE MOTOR DRIVE
POWER SAVE
12
11
14
13
21
10
9
18
17
15
16
4
6
5
1
2
24
23
22
27
26
25

IC201 (SERVO DSP)
DAC1 115
DAC0 114
SPDRV 68
TRSDRV 67
V-REF
FBAL 66
TBAL 65
OFTR 51
BDO 52
AD1 118
AD0 117
TRCRS 90
AD2 119
AD3 120

IC102 (OP AMP)
5
7
8
10
3
1
CFE
CAS

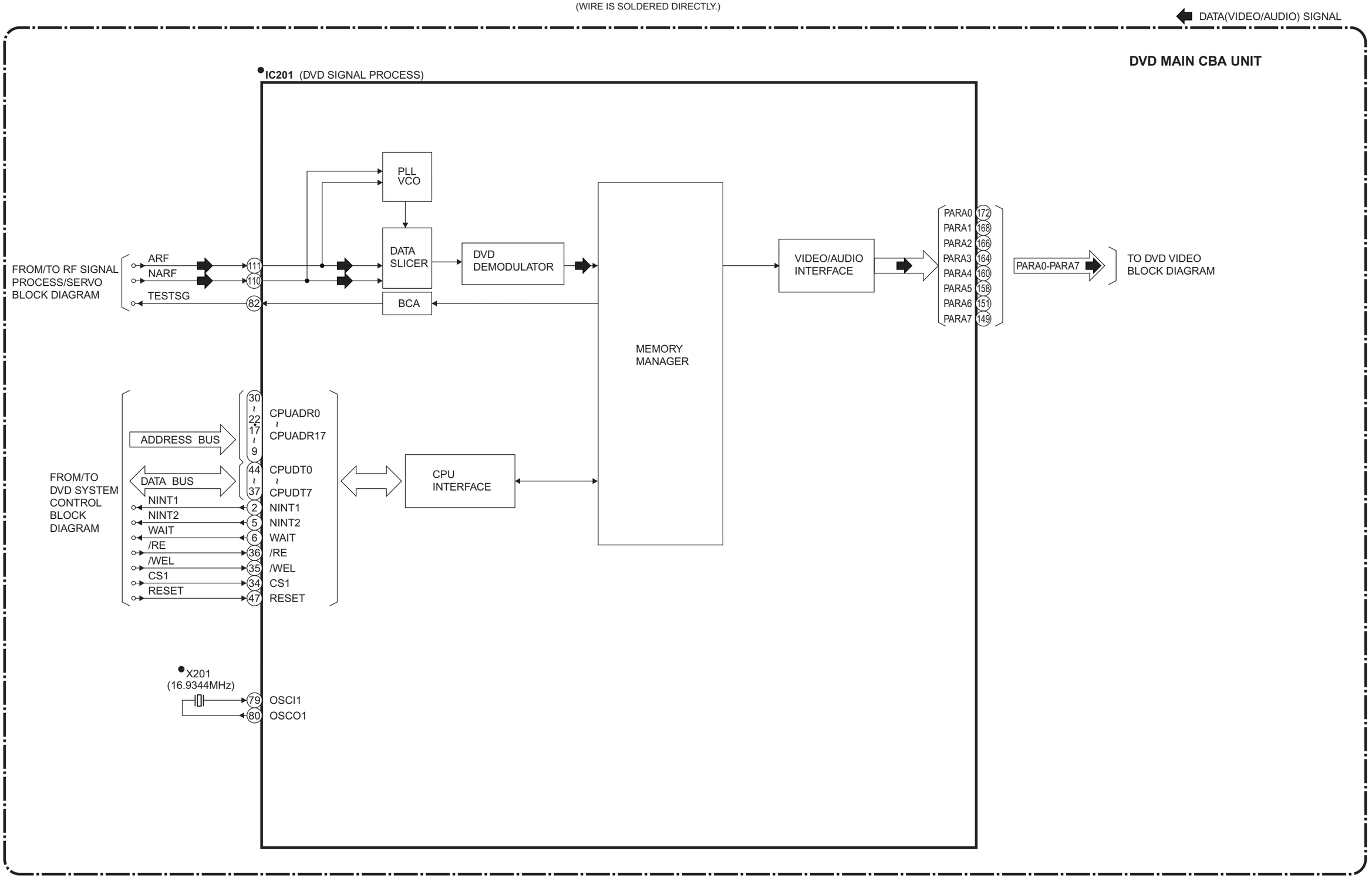
+3.3V

FROM/TO DVD SYSTEM CONTROL BLOCK DIAGRAM
MUTE
TFWD
TREV
TIN
PS
TOUT

DVD Signal Process Block Diagram

" ● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)



DVD Video Block Diagram

" ● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

DATA(VIDEO) SIGNAL
DATA(AUDIO) SIGNAL
VIDEO SIGNAL
DATA(VIDEO/AUDIO) SIGNAL

IC601 (DVD HOST PROCESSOR)

CPU
CACHE SUBSYSTEM
INTERNAL PERIPHERALS PORTS
CENTRAL COMMAND PORT
FRONT-END & LINK INTERFACE
ST20 ARBITER & MEMORY CONTROLLER
AUDIO DECODER
I/F
CD FIFO
SDRAM BLOCK MOVE
SDRAM ARBITER
PROGRAMMABLE CPU INTERFACE
VIDEO DECODER
VIDEO FILTERING
OSD, SP DECODER & MIXING
DENC
SHARED SDRAM INTERFACE

FROM DVD SIGNAL PROCESS BLOCK DIAGRAM
PARA0-PARA7
6 ~ 13
PARA0 ~ PARA7

TO DVD AUDIO BLOCK DIAGRAM
A-MUTE (191)
ADAC-MD (190)
ADAC-MC (189)
ADAC-ML (192)

PCM-BCK (51)
PCM-DATA0 (52)
PCM-SCLK (55)
PCM-LRCLK (56)
SPDIF (57)
TO DVD AUDIO BLOCK DIAGRAM

IC602
(8Mbit FLASH MEMORY)
A0 ~ A18 (25 ~ 16, 8 ~ 1, 48)
ADDR1-ADDR20 (161 ~ 170, 173 ~ 182)
ADDR1 ~ ADDR20
DQ0 ~ DQ15 (29 ~ 45)
DATA0-DATA15 (141 ~ 158)
DATA0 ~ DATA15
WE (11) DQM0 (128)
CE (26) CS3 (132)
OE (28) OE (117)

AD0 ~ AD13
DQ0 ~ DQ15
CAS RAS DQML DQMU WE CS
66 ~ 73, 58 ~ 63
84 ~ 93, 97 ~ 102
77 76 79 80 78 74

IC604
(64Mbit SDRAM)
AD0 ~ AD13
DQ0 ~ DQ15
CAS RAS LDQM UDQM WE CS
20 ~ 26, 29 ~ 35
2 ~ 13, 42 ~ 53
17 18 15 39 16 19

CN701
32 DVD-VIDEO-Y 8
33 DVD-VIDEO-C 12
34 DVD-VIDEO-CVBS 10
25 DVD-VIDEO-B 6
27 DVD-VIDEO-R 4
26 DVD-VIDEO-G 2

DVD MAIN CBA UNIT

JK1401
S-VIDEO OUT
Y
C
3 4 1 2

IC1402 (VIDEO DRIVER)
WF1
WF2
WF3
CN1601
6 DVD-VIDEO-Y 8
2 DVD-VIDEO-C 12
4 DVD-VIDEO-CVBS 10
14 DVD-VIDEO-B 6
16 DVD-VIDEO-R 4
12 DVD-VIDEO-G 2

4dB AMP → LPF → 2dB AMP → DRIVER
27
33
30
21
18
24

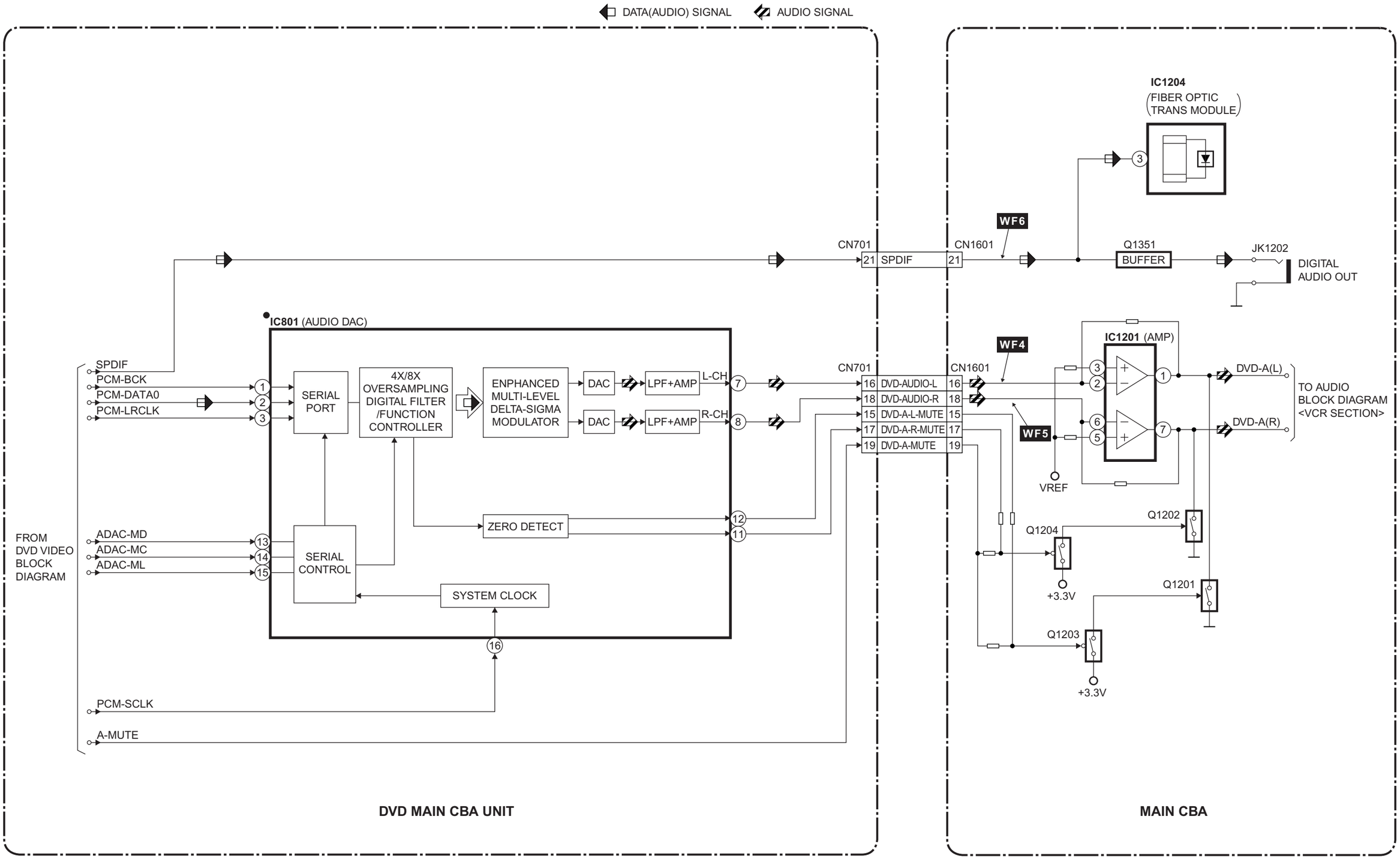
JK1404
DVD-VIDEO
DVD-B
DVD-R
DVD-G
TO VIDEO BLOCK <VCR SECTION>

MAIN CBA

DVD Audio Block Diagram

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR.
   (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER
   HOLES OF THE PCB.
   (WIRE IS SOLDERED DIRECTLY.)



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark " ⚠ " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

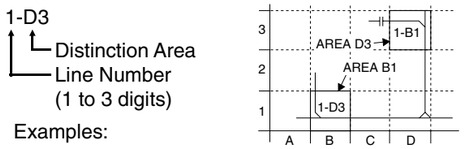
Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	±30 - 80%	20°C	–25~+85°C
(SR)	±15%	20°C	–25~+85°C
(Y)	±22.5%	20°C	–25~+85°C

Capacitors and transistors are represented by the following symbols.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.
3. Prefix symbol "CN" means "connector" (can disconnect and reconnect).
   Prefix symbol "CL" means "wire-solder holes of the PCB" (wire is soldered directly).
4. How to read converged lines.

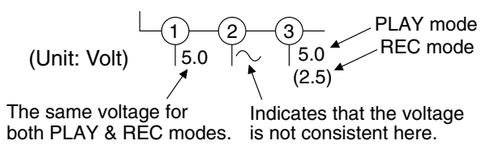


Examples:

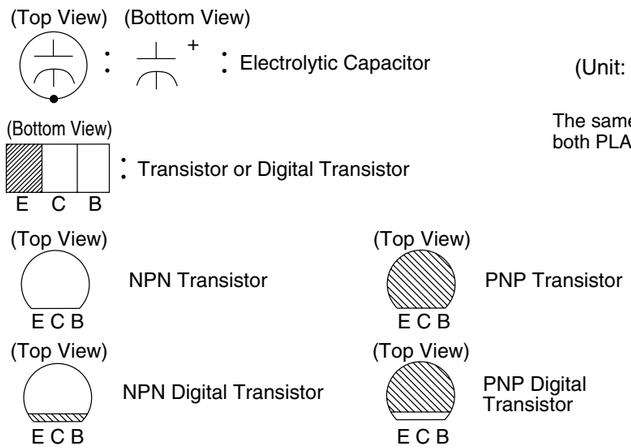
(1). "1-D3" means that line number "1" goes to area "D3."

(2). "1-B1" means that line number "1" goes to area "B1."

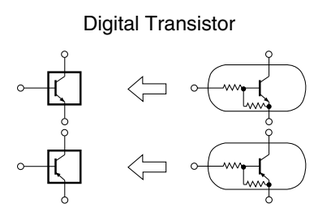
5. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
6. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
7. All capacitance values are indicated in μF ($P=10^{-6}$ μF).
8. All voltages are DC voltages unless otherwise specified.
9. Voltage indications for PLAY and REC modes on the schematics are as shown below.



< PCB Symbols >



< Schematic Diagram Symbols >



Main 1/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position	Ref No.	Position
CAPACITORS		COILS		RESISTORS	
C505	B-3	L503	E-3	R544	C-1
C506	B-1	TRANSISTORS		R545	C-1
C508	B-1	Q501	B-5	R546	C-2
C509	B-2	Q502	B-5	R547	C-1
C510	B-2	Q503	A-1	R548	C-1
C511	B-3	Q504	A-2	R550	C-1
C513	B-2	Q506	A-3	R553	D-1
C514	B-2	Q507	B-5	R555	D-1
C516	B-2	Q508	C-5	R557	D-4
C517	B-2	Q509	C-5	R563	D-1
C519	B-2	Q510	B-2	R565	C-4
C521	B-2	Q511	C-5	R566	C-4
C522	C-2	Q513	E-3	R567	E-5
C524	C-3	Q514	E-3	R568	F-5
C527	D-1	Q515	E-2	R569	F-4
C531	F-5	RESISTORS		R570	E-1
C533	F-5	R501	A-3	R572	E-3
C534	D-4	R502	A-3	R574	E-2
C535	E-3	R503	A-3	R575	E-2
C538	E-3	R504	A-3	R576	E-2
C539	E-3	R505	A-2	R577	E-3
C540	E-3	R506	A-2	R578	E-3
C541	E-2	R507	A-2	R581	E-3
C542	E-2	R508	B-5	R582	E-2
C543	E-2	R509	A-3	R583	E-2
C544	E-2	R511	A-2	R584	E-3
C545	E-3	R512	A-3	R585	F-2
C546	E-3	R513	B-3	R586	F-2
C547	E-3	R514	A-2	R587	F-3
C548	E-2	R515	B-5	R588	F-3
C549	E-2	R516	A-2	R589	A-2
C550	E-2	R517	A-1	R591	F-4
C553	F-2	R519	A-2	SWITCHES	
C554	E-4	R520	C-5	SW501	A-3
C555	F-1	R522	C-5	SW502	A-3
CONNECTORS		R523	A-2	SW503	A-3
CL501	F-4	R524	B-5	SW504	A-3
CL502	F-5	R525	B-2	SW505	A-3
CL504	F-5	R526	B-2	SW506	E-1
CN505	A-5	R528	B-2	SW507	A-2
DIODES		R529	B-5	SW508	A-2
D506	C-5	R530	C-5	SW511	E-2
D507	C-5	R531	C-5	VARIABLE RESISTORS	
D508	C-5	R532	C-5	VR501	B-1
D510	E-4	R533	C-5	CRYSTAL OSCILLATORS	
D511	E-3	R534	C-5	X501	E-2
D512	E-3	R535	C-5	X502	E-2
D513	E-4	R536	B-2	MISCELLANEOUS	
D555	A-1	R537	B-2	PS502	B-3
ICS		R538	B-3	TEST POINTS	
IC501	C-3	R539	B-4	TP501	A-2
IC502	B-4	R540	B-4	TP502	B-2
COILS		R541	C-1	TP503	B-2
L501	B-1	R542	C-1	TP504	D-1
L502	D-4	R543	C-2		

Main 1/8 Schematic Diagram < VCR Section >

★1 **Note:**
When it is necessary to replace one or more of the following Diodes, all three should be replaced: D506, D507, D508.

"●" = SMD

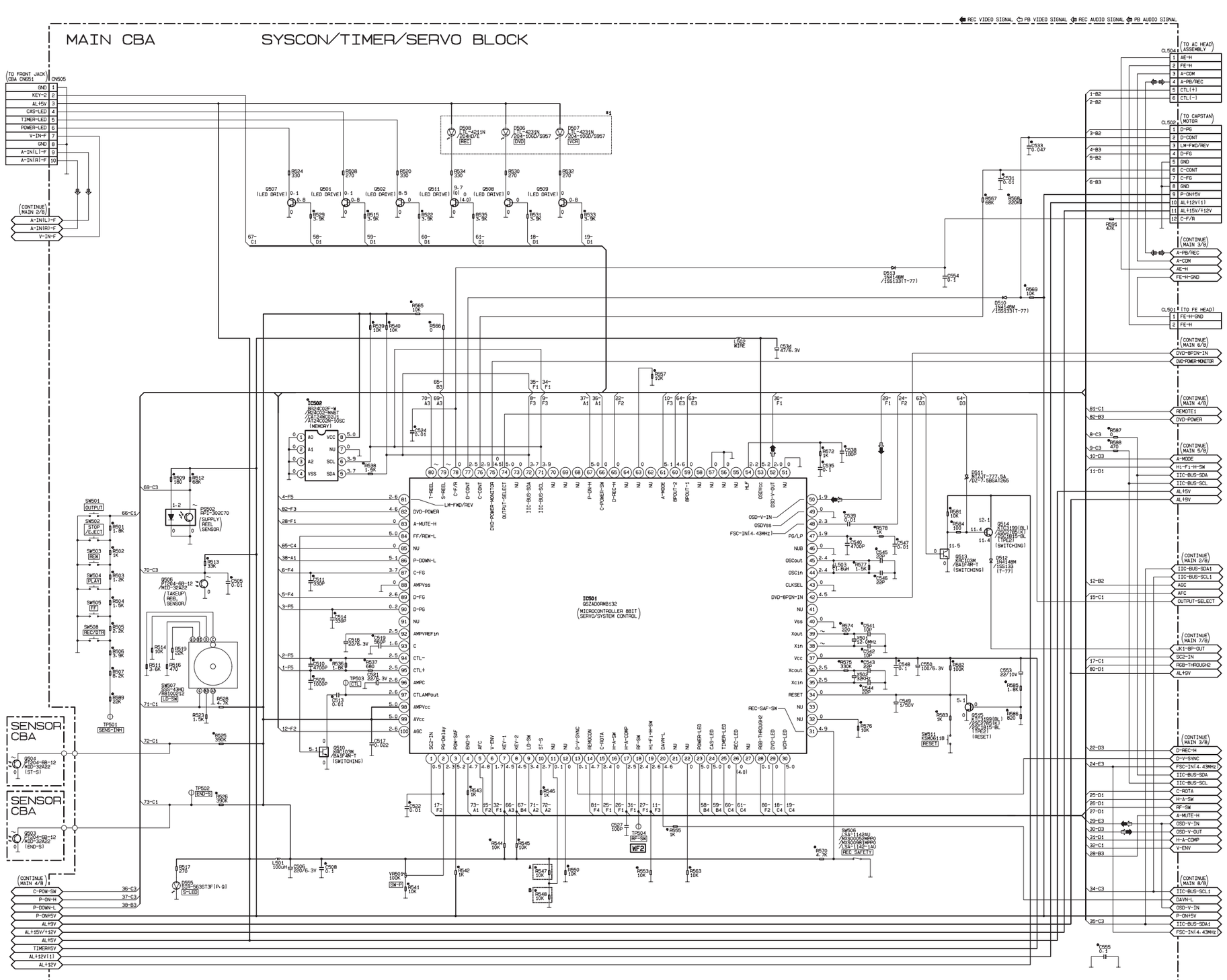
MODE: SP/REC — 1 (5.0) — 2 (~) — 3 (5.0 / (2.5)) — PLAY MODE / REC MODE
THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.
INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

Comparison Chart of Models and Marks

MODEL	MARK
DVD740VR/001	A
DVD740VR/051	B

IC501 KEY VOLTAGE CHART

Pin No. / Voltage	KEY 1 (7PIN)	KEY 2 (8 PIN)
0.00 ~ 0.51V	OUTPUT	TIMER
0.51 ~ 0.92V	STOP/EJECT	POWER
0.92 ~ 1.27V	REW	CH UP
1.27 ~ 1.61V	PLAY	CH DOWN
1.61 ~ 1.98V	FF	----------
1.98 ~ 2.39V	REC/OTR	----------
2.39 ~ 2.90V	----------	----------
2.90 ~ 3.60V	----------	----------
3.60 ~ 4.30V	SENS-INH	----------
4.30 ~ 5.00V	KEY OFF	KEY OFF



Main 2/8 Schematic Diagram < VCR Section >

* ● = SMD

MODE: SP/REC — 1 (5.0) — 2 (~) — 3 (5.0 / (2.5)) — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

REC VIDEO SIGNAL ⇦ PB VIDEO SIGNAL ⇦ DVD VIDEO SIGNAL ⇦ REC AUDIO SIGNAL ⇦ PB AUDIO SIGNAL ⇦ DVD AUDIO SIGNAL

MAIN CBA

TUNER BLOCK

INSEL BLOCK

TU701 [UTUNPLBAL012] [UTUNPLSAL001] (TUNER UNIT)

IC751 TC4053BF(N) /BU4053BCF-E2 (SW)

Q752 KRC103M /BA1F4M-T (SWITCHING)

CN701 (TO AFV CBA CN1)

JK751

TP751

Comparison Chart of Models and Marks

MODEL	MARK
DVD740VR/001	A
DVD740VR/051	B

MAIN 2/8 Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C701	J-4
C703	J-4
C706	J-5
C708	I-5
C709	I-4
C711	I-4
C712	J-5
C714	I-4
C751	J-3
C752	J-3
C753	J-2
C754	J-2
C755	K-2
C756	L-2
CONNECTORS	
CN701	L-4
DIODES	
D701	I-4
D751	K-3
ICS	
IC751	I-2
COILS	
L701	I-4
L702	J-5
L703	J-4
L704	I-5
TRANSISTORS	
Q752	J-2
RESISTORS	
R703	I-4
R704	I-4
R705	I-4
R706	I-4
R751	I-2
R752	K-3
R753	I-2
R755	J-3
R756	L-2
R757	L-2
MISCELLANEOUS	
JK751	L-2
TU701	J-5
TEST POINTS	
TP751	I-2

Main 3/8 Schematic Diagram < VCR Section >

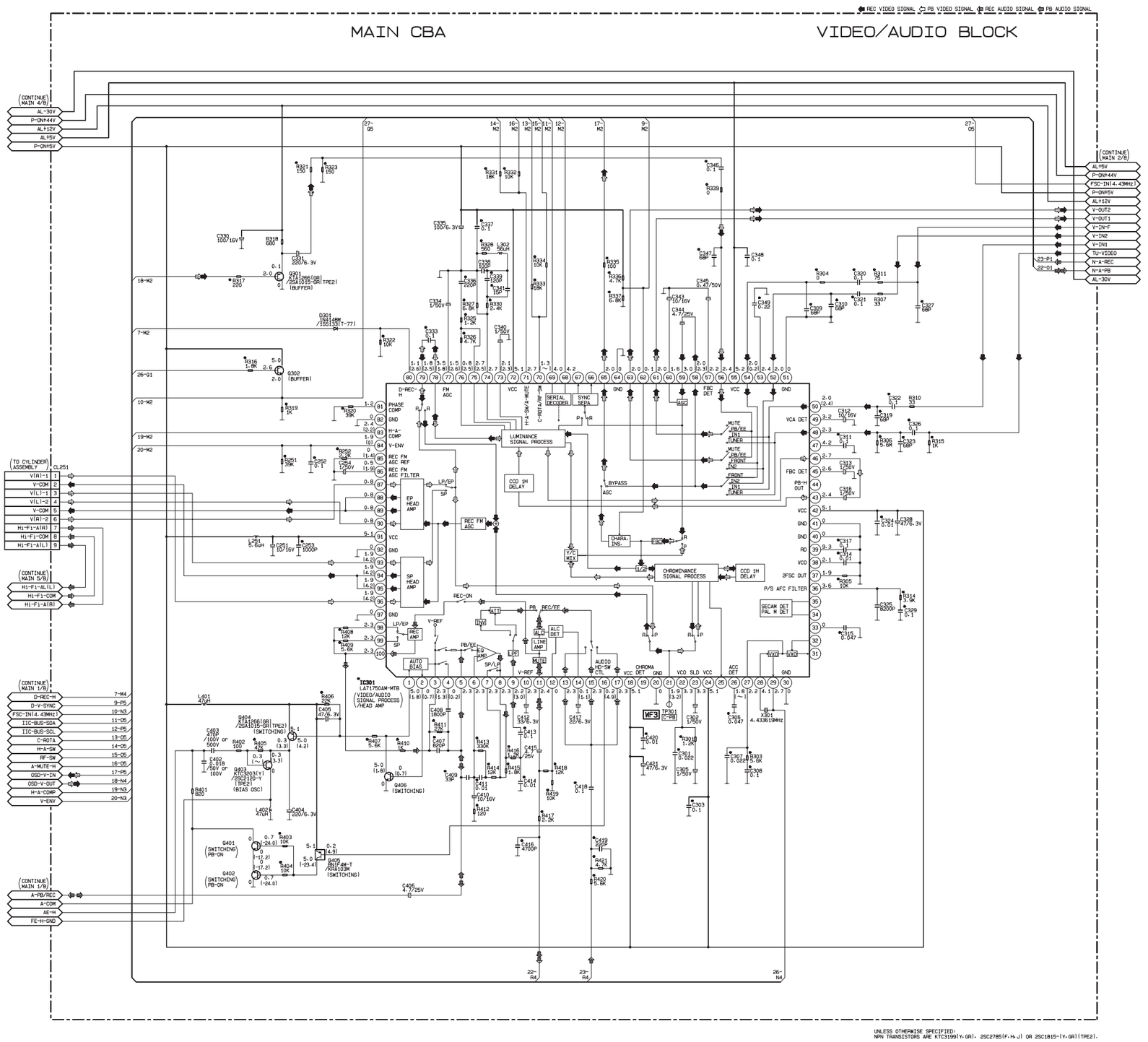
"●" = SMD

MODE: SP/REC

1 — 5.0 — 2 — ~ — 3 — 5.0 (2.5) — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.



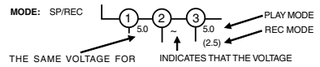
MAIN 3/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		COILS	
C251	N-3	L251	N-3
C252	N-3	L302	O-4
C253	N-3	L401	N-2
C254	N-3	L402	N-2
C301	P-2	TRANSISTORS	
C302	P-2	Q301	N-4
C303	P-2	Q302	N-4
C305	P-2	Q401	N-1
C306	P-2	Q402	N-1
C307	P-2	Q403	N-2
C308	P-2	Q404	N-2
C309	Q-4	Q405	N-1
C310	Q-4	Q406	O-2
C311	Q-3	RESISTORS	
C312	Q-3	R251	N-3
C313	Q-3	R252	N-3
C314	Q-3	R301	P-2
C315	Q-2	R303	Q-4
C316	Q-3	R304	Q-4
C317	Q-3	R305	Q-3
C319	Q-3	R306	Q-3
C320	Q-4	R307	Q-4
C321	Q-4	R310	Q-4
C322	Q-4	R311	Q-4
C323	Q-3	R314	Q-3
C324	Q-3	R315	Q-3
C325	Q-3	R316	N-4
C326	Q-3	R317	N-4
C327	Q-4	R318	N-4
C328	Q-3	R319	N-3
C329	Q-3	R320	O-3
C330	N-4	R321	N-5
C331	N-4	R322	O-4
C333	O-4	R323	N-5
C334	O-4	R325	O-4
C335	O-4	R326	O-4
C336	O-4	R327	O-4
C337	O-4	R328	O-4
C338	O-4	R330	O-4
C339	O-4	R331	O-5
C340	O-4	R332	O-5
C341	O-4	R333	O-4
C343	P-4	R334	O-4
C344	P-4	R335	P-4
C345	P-4	R336	P-4
C346	P-5	R337	P-4
C347	P-4	R339	P-5
C348	P-4	R401	N-2
C349	P-4	R402	N-2
C402	N-2	R403	N-1
C403	N-2	R404	N-1
C404	N-2	R405	N-2
C405	N-2	R406	N-2
C406	O-1	R407	O-2
C407	O-2	R408	O-2
C408	O-2	R409	O-2
C409	O-2	R410	O-2
C410	O-2	R411	O-2
C411	O-2	R412	O-2
C412	O-2	R413	O-2
C413	O-2	R414	O-2
C414	O-2	R415	O-2
C415	O-2	R416	O-2
C416	O-1	R417	O-2
C417	P-2	R418	O-2
C418	P-2	R419	O-2
C419	P-1	R420	P-1
C420	P-2	R421	P-1
C421	P-2	CRYSTAL OSCILLATORS	
CONNECTORS		X301	P-2
CL251	M-3	TEST POINTS	
DIODES		TP301	P-2
D301	N-4		
ICS			
IC301	O-2		

Main 4/8 Schematic Diagram < VCR Section >

"●" = SMD

MODE: SP/REC



MAIN CBA

POWER CONTROL BLOCK

JUNCTION -B CBA

JUNCTION -A CBA

UNLESS OTHERWISE SPECIFIED:
SWITCHES ARE KSM0614B OR SKQSAF001A.

1-11-12 1-11-13 1-11-14 H9330SCM4

Main 4/8 Schematic Diagram Parts Location Guide

MAIN 4/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		TRANSISTORS	
C055	T-4	Q051	U-4
C056	U-4	Q052	U-4
C057	V-3	Q053	V-4
C058	U-3	Q054	V-4
C059	V-3	Q055	V-3
C060	W-3	Q056	V-3
C063	U-3	Q057	W-3
C1054	W-3	Q1051	V-3
C1058	W-2	Q1052	W-3
C1059	W-2	Q1053	W-2
C1060	W-2	Q1054	W-2
C1061	W-1	Q1055	W-1
C1062	W-1	Q1057	V-2
C1067	X-2	RESISTORS	
C1068	W-1	R051	U-4
CONNECTORS		R052	U-4
CL051A	T-4	R053	U-4
CL050A	T-3	R054	U-4
CL050B	T-3	R055	V-3
CL2003	T-2	R058	W-4
CN050	S-3	R059	W-4
CN051	S-4	R060	W-4
CN1001	X-3	R062	U-3
CN2002	T-2	R064	W-3
DIODES		R065	W-3
D051	U-4	R1051	T-3
D052	U-4	R1052	T-3
D053	U-4	R1053	V-3
D054	U-3	R1054	W-3
D055	V-3	R1055	T-3
D056	U-3	R1056	W-2
D057	V-3	R1058	V-2
D1051	W-3	R1059	W-2
D1052	W-3	R1060	W-1
D1053	V-2	R1061	W-1
D1056	V-1	R1066	V-2
D1060	V-1	R1080	X-1
ICS		R1081	W-1
IC1052	W-2	R2039	U-2
IC1053	V-2	SWITCHES	
COILS		SW2011	U-2
L051	T-4	SW2012	T-2
L052	U-4	SW2016	U-2
L053	U-4	SW2017	U-2

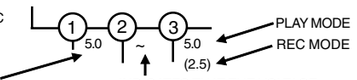
Main 5/8 Schematic Diagram Parts Location Guide

MAIN 5/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		CAPACITORS	
C451	Y-2	C488	Z-3
C452	Y-3	ICS	
C453	Y-3	IC451	Y-2
C454	Y-3	COILS	
C455	Y-2	L451	AA-2
C456	Y-2	L452	AA-2
C457	Y-2	TRANSISTORS	
C458	Y-2	Q451	AA-2
C459	Y-2	RESISTORS	
C460	Y-1	R451	Y-2
C461	Z-1	R452	Y-2
C462	Z-1	R453	Y-2
C463	Z-1	R454	Y-2
C464	Z-3	R455	Y-2
C465	Z-1	R456	Y-2
C466	Z-3	R457	Y-2
C467	AA-1	R458	Y-2
C468	Z-3	R459	Y-1
C469	Z-1	R460	Z-1
C470	Z-3	R461	Z-1
C471	Z-1	R462	Z-3
C472	AA-3	R463	Z-1
C473	AA-1	R464	Z-1
C474	AA-1	R465	Z-3
C475	AA-3	R466	Z-3
C476	AA-3	R467	Z-1
C477	AA-2	R468	Z-1
C478	AA-2	R469	Z-3
C479	AA-2	R470	Z-1
C480	AA-2	R471	Z-1
C481	AA-2	R472	Z-1
C482	AA-2	R473	AA-2
C483	AA-3	R475	AA-2
C484	AA-3	R476	AA-2
C487	Z-3		

Main 5/8 Schematic Diagram < VCR Section >

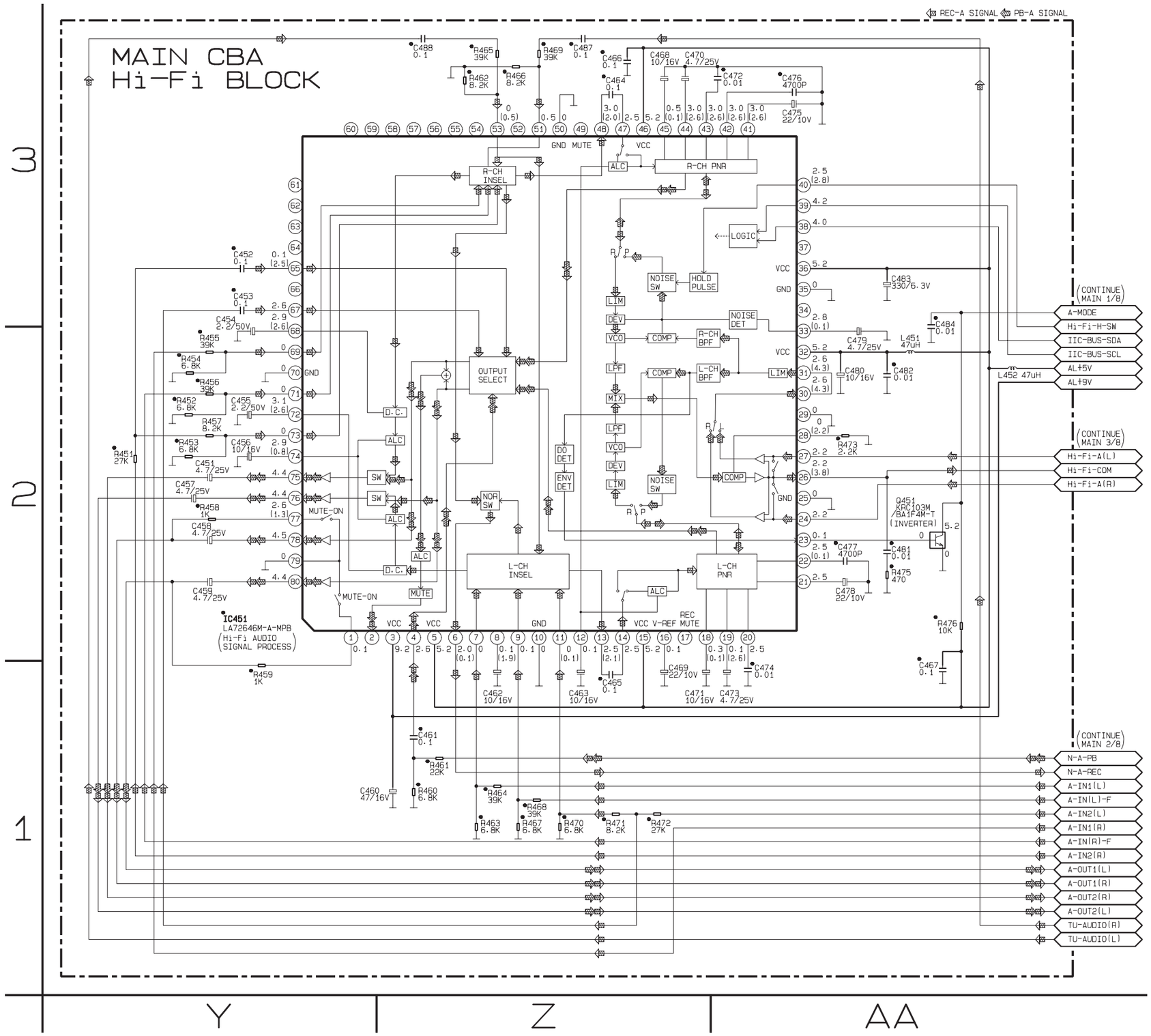
MODE: SP/REC



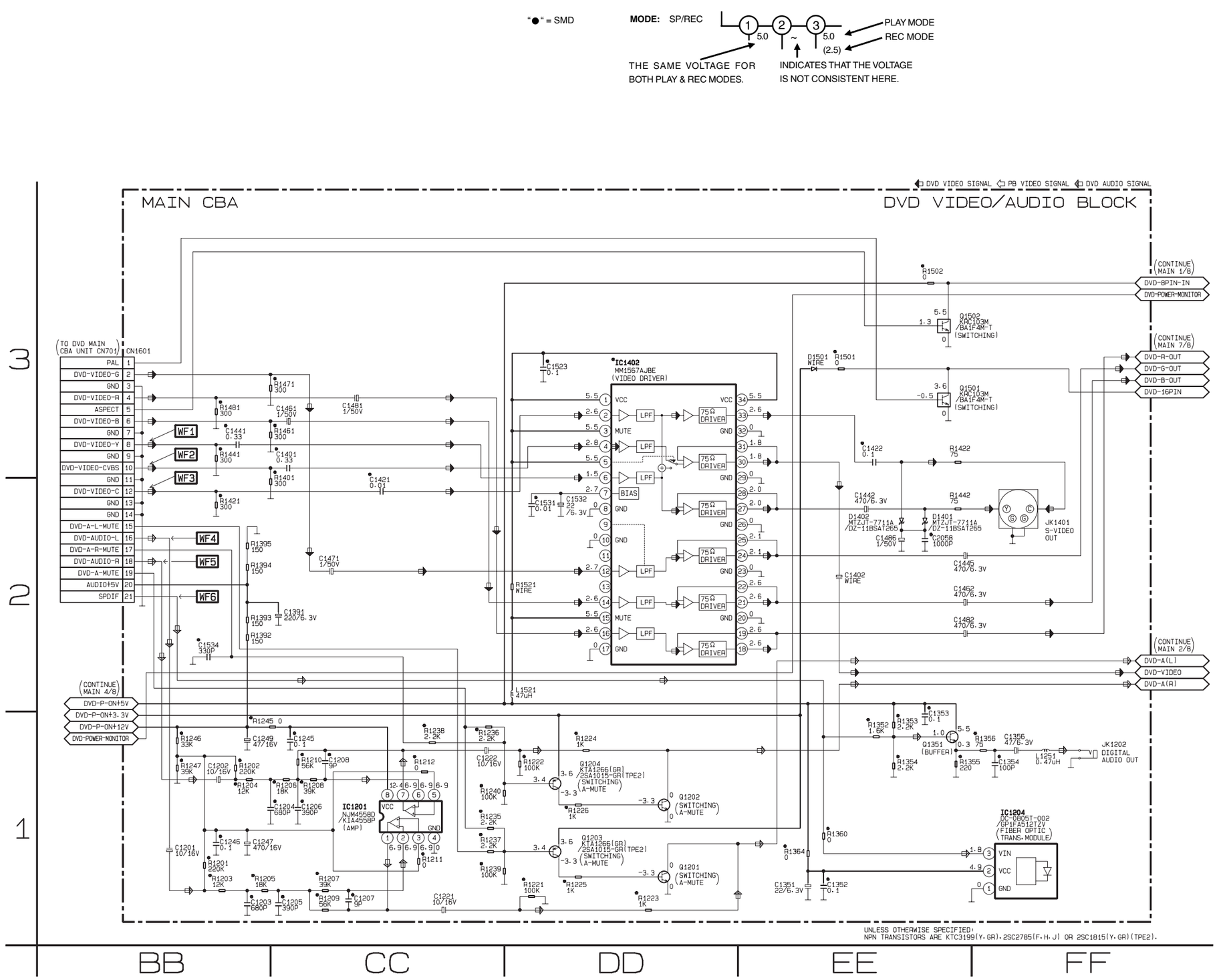
THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

"●" = SMD



Main 6/8 Schematic Diagram < VCR Section >



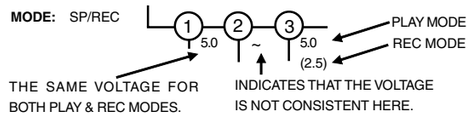
MAIN 6/8 Schematic Diagram Parts Location Guide

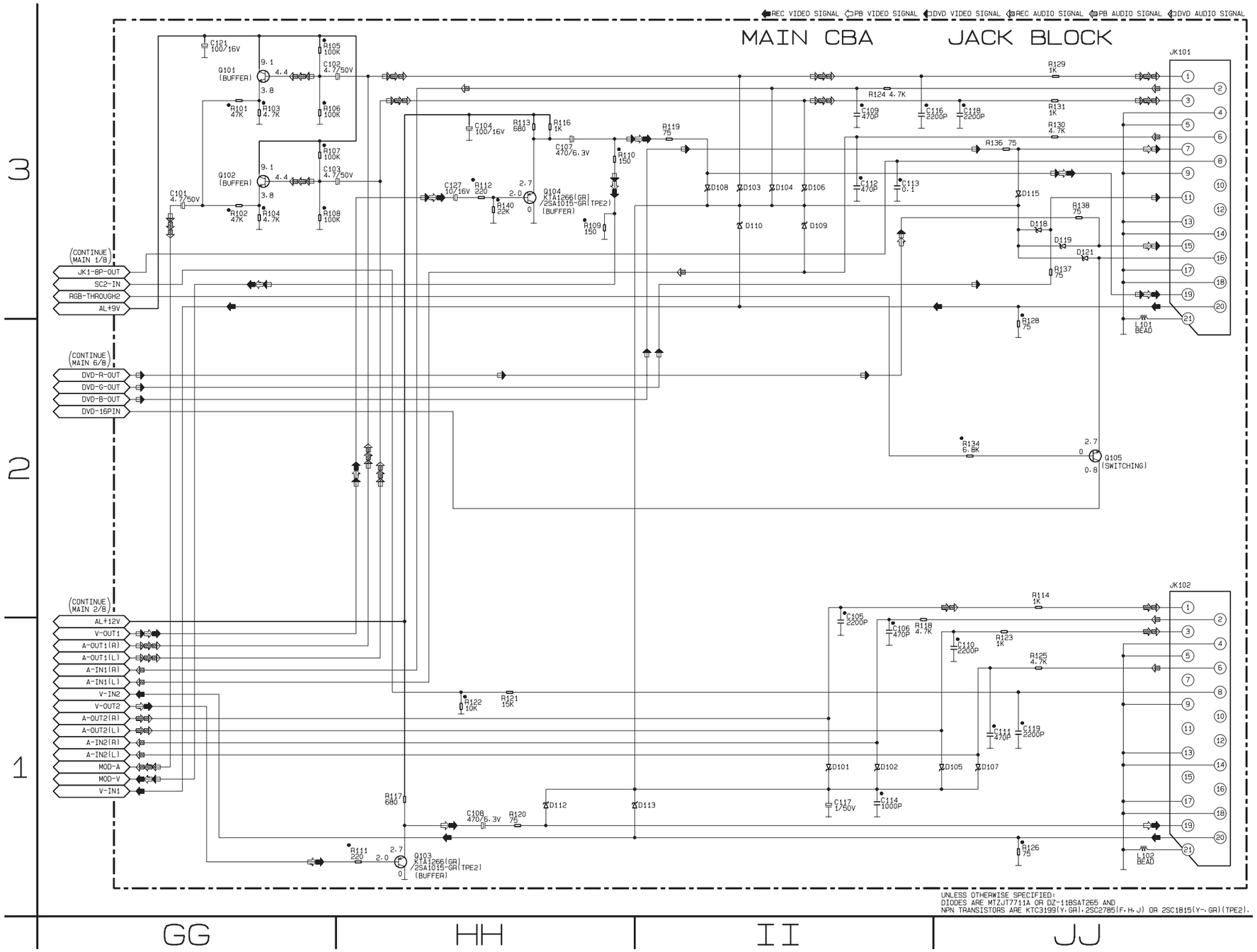
Ref No.	Position	Ref No.	Position
CAPACITORS		TRANSISTORS	
C1201	BB-1	Q1501	EE-3
C1202	BB-1	Q1502	EE-3
C1203	BB-1	RESISTORS	
C1204	CC-1	R1201	BB-1
C1205	CC-1	R1202	BB-1
C1206	CC-1	R1203	BB-1
C1207	CC-1	R1204	BB-1
C1208	CC-1	R1205	BB-1
C1221	CC-1	R1206	CC-1
C1222	CC-1	R1207	CC-1
C1245	CC-1	R1208	CC-1
C1246	BB-1	R1209	CC-1
C1247	BB-1	R1210	CC-1
C1249	BB-1	R1211	CC-1
C1351	EE-1	R1212	CC-1
C1352	EE-1	R1221	DD-1
C1353	EE-1	R1222	DD-1
C1354	FF-1	R1223	DD-1
C1356	FF-1	R1224	DD-1
C1391	CC-1	R1225	DD-1
C1401	CC-3	R1226	DD-1
C1421	CC-2	R1235	CC-1
C1422	EE-3	R1236	CC-1
C1441	BB-3	R1237	CC-1
C1442	EE-2	R1238	CC-1
C1445	EE-2	R1239	CC-1
C1461	CC-3	R1240	CC-1
C1462	EE-2	R1245	BB-1
C1471	CC-1	R1246	BB-1
C1481	CC-3	R1247	BB-1
C1482	EE-2	R1352	EE-1
C1486	EE-2	R1353	EE-1
C1523	DD-3	R1354	EE-1
C1531	DD-2	R1355	EE-1
C1532	DD-2	R1356	FF-1
C1534	BB-2	R1360	EE-1
C2058	EE-2	R1364	EE-1
CONNECTORS		R1392	BB-2
CN1601	BB-3	R1393	BB-2
DIODES		R1394	BB-2
D1401	EE-2	R1395	BB-2
D1402	EE-2	R1401	CC-3
D1501	EE-3	R1421	BB-2
ICS		R1422	EE-3
IC1201	CC-1	R1441	BB-3
IC1204	FF-1	R1442	EE-2
IC1402	DD-3	R1461	CC-3
COILS		R1471	CC-3
L1251	FF-1	R1481	BB-3
L1521	DD-2	R1501	EE-3
TRANSISTORS		R1502	EE-3
Q1201	DD-1	R1521	DD-2
Q1202	DD-1	MISCELLANEOUS	
Q1203	DD-1	JK1202	FF-1
Q1204	DD-1	JK1401	FF-2
Q1351	EE-1		

Main 7/8 Schematic Diagram < VCR Section >

"●" = SMD

MODE: SP/REC



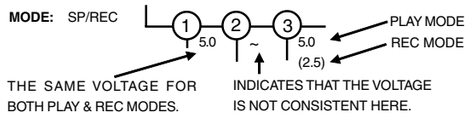


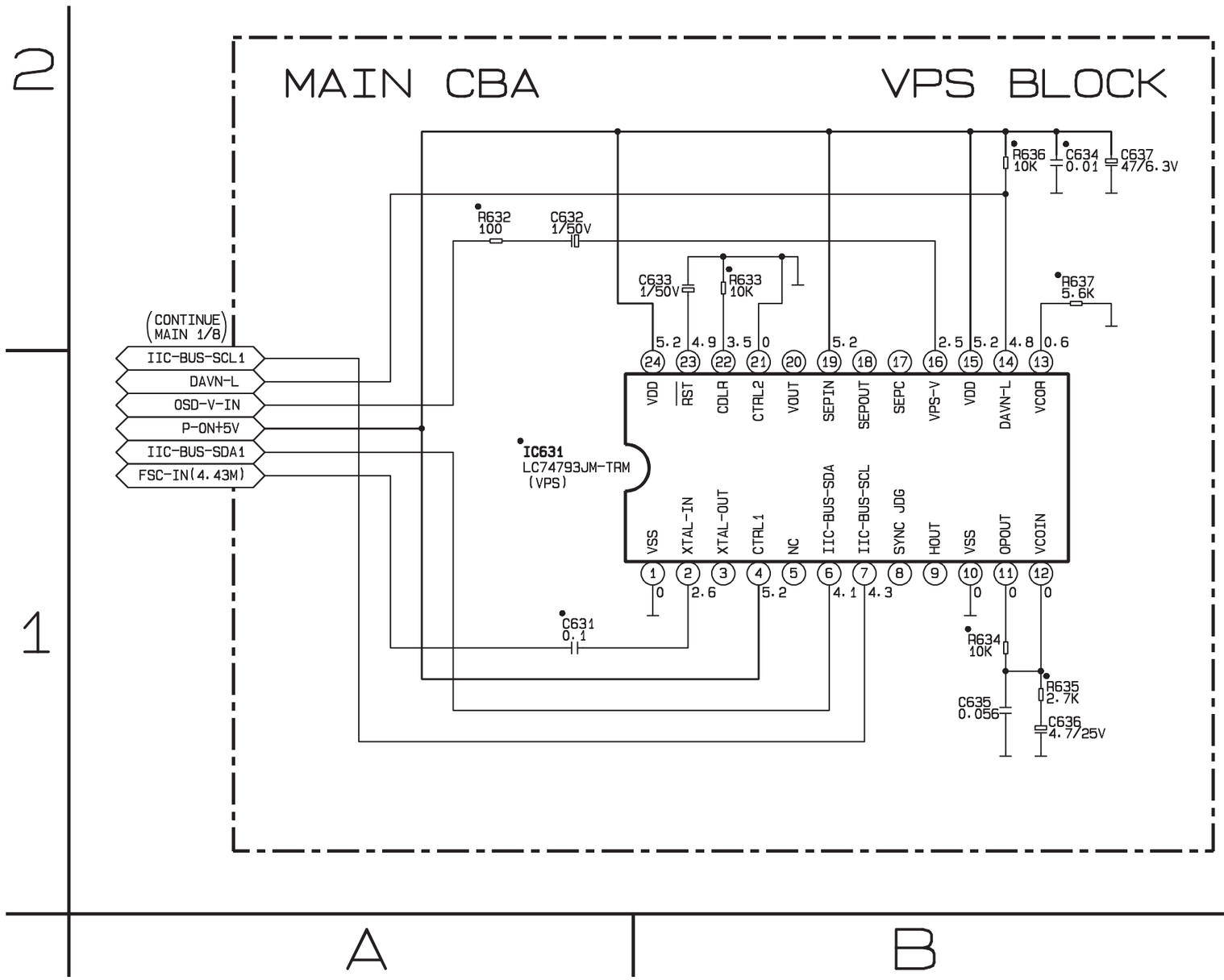
MAIN 7/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		TRANSISTORS	
C101	GG-3	Q103	HH-1
C102	GG-3	Q104	HH-3
C103	GG-3	Q105	JJ-2
C104	HH-3	RESISTORS	
C105	II-2	R101	GG-3
C106	II-1	R102	GG-3
C107	HH-3	R103	GG-3
C108	HH-1	R104	GG-3
C109	II-3	R105	GG-3
C110	JJ-1	R106	GG-3
C111	JJ-1	R107	GG-3
C112	II-3	R108	GG-3
C113	II-3	R109	HH-3
C114	II-1	R110	HH-3
C116	II-3	R111	HH-1
C117	II-1	R112	HH-3
C118	JJ-3	R113	HH-3
C119	JJ-1	R114	JJ-2
C121	GG-3	R116	HH-3
C127	HH-3	R117	HH-1
DIODES		R118	II-1
D101	II-1	R119	II-3
D102	II-1	R120	HH-1
D103	II-3	R121	HH-1
D104	II-3	R122	HH-1
D105	JJ-1	R123	JJ-1
D106	II-3	R124	II-3
D107	JJ-1	R125	JJ-1
D108	II-3	R126	JJ-1
D109	II-3	R128	JJ-2
D110	II-3	R129	JJ-3
D112	HH-1	R130	JJ-3
D113	II-1	R131	JJ-3
D115	JJ-3	R133	II-2
D118	JJ-3	R134	JJ-2
D119	JJ-3	R136	JJ-3
D121	JJ-3	R137	JJ-3
COILS		R138	JJ-3
L101	JJ-2	R140	HH-3
L102	JJ-1	MISCELLANEOUS	
TRANSISTORS		JK101	JJ-3
Q101	GG-3	JK102	JJ-2
Q102	GG-3		

Main 8/8 Schematic Diagram < VCR Section >

"●" = SMD



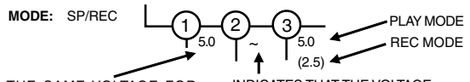


MAIN 8/8 Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C631	A-1
C632	A-2
C633	B-2
C634	B-2
C635	B-1
C636	B-1
C637	B-2
ICS	
IC631	A-1
RESISTORS	
R632	A-2
R633	B-2
R634	B-1
R635	B-1
R636	B-2
R637	B-2

Power Supply Schematic Diagram < VCR Section >

MODE: SP/REC



"●" = SMD

CAUTION !

Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

NOTE :

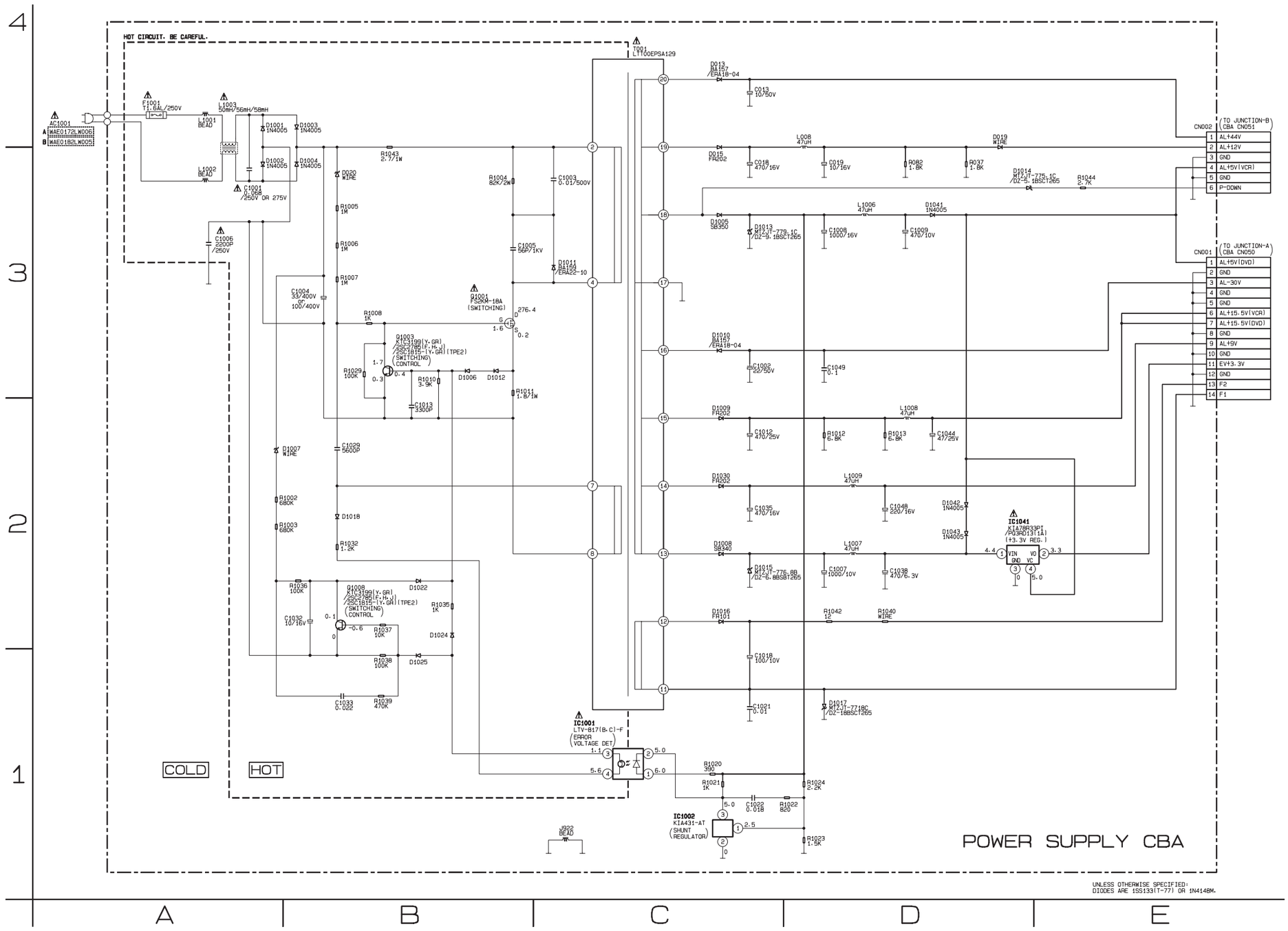
THE VOLTAGE FOR PARTS IN HOT CIRCUIT IS MEASURED USING HOT GND AS A COMMON TERMINAL.

CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.

Comparison Chart of Models and Marks

MODEL	MARK
DVD740VR/001	A
DVD740VR/051	B



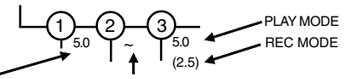
Power Supply Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		DIODES	
C013	C-4	D1041	D-3
C018	C-3	D1042	D-2
C019	D-3	D1043	D-2
C1001	A-3	ICS	
C1002	C-3	IC1001	C-1
C1003	C-3	IC1002	C-1
C1004	B-3	IC1041	D-2
C1005	B-3	COILS	
C1006	A-3	J922	C-1
C1007	D-2	L008	D-4
C1008	D-3	L1001	A-4
C1009	D-3	L1002	A-3
C1012	C-2	L1003	A-4
C1013	B-2	L1006	D-3
C1018	C-1	L1007	D-2
C1021	C-1	L1008	D-2
C1022	C-1	L1009	D-2
C1029	B-2	TRANSISTORS	
C1032	B-2	Q1001	B-3
C1033	B-1	Q1003	B-3
C1035	C-2	Q1008	B-2
C1038	D-2	RESISTORS	
C1044	D-2	R037	D-3
C1048	D-2	R082	D-3
C1049	D-3	R1002	A-2
CONNECTORS		R1003	A-2
CN001	E-3	R1004	B-3
CN002	E-4	R1005	B-3
DIODES		R1006	B-3
D013	C-4	R1007	B-3
D015	C-3	R1008	B-3
D019	D-4	R1010	B-3
D020	B-3	R1011	B-3
D1001	A-4	R1012	D-2
D1002	A-3	R1013	D-2
D1003	B-4	R1020	C-1
D1004	B-3	R1021	C-1
D1005	C-3	R1022	C-1
D1006	B-3	R1023	D-1
D1007	B-2	R1024	D-1
D1008	C-2	R1029	B-3
D1009	C-2	R1032	B-2
D1010	C-3	R1035	B-2
D1011	C-3	R1036	B-2
D1012	B-3	R1037	B-2
D1013	C-3	R1038	B-1
D1014	D-3	R1039	B-1
D1015	C-2	R1040	D-2
D1016	C-2	R1042	D-2
D1017	D-1	R1043	B-3
D1018	B-2	R1044	E-3
D1022	B-2	MISCELLANEOUS	
D1024	B-2	AC1001	A-4
D1025	B-1	F1001	A-4
D1030	C-2	T001	C-4

Function Schematic Diagram < VCR Section >

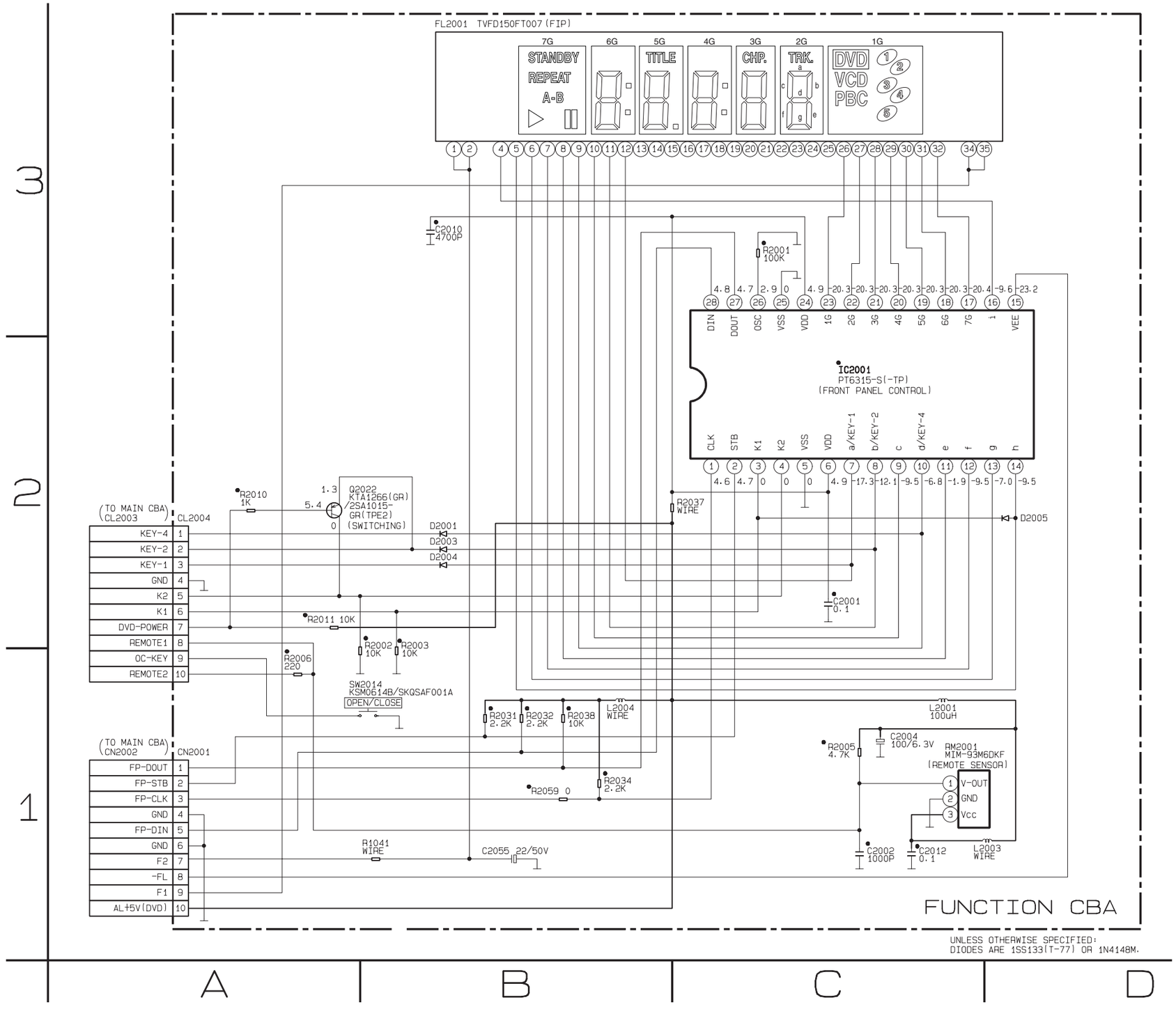
"●" = SMD

MODE: SP/REC



THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.



FL2001 MATRIX CHART

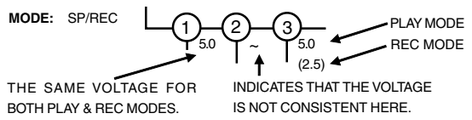
	7G	6G	5G	4G	3G	2G	1G
a	STANDBY	a	a	a	a	a	1
b	REPEAT	b	b	b	b	b	2
c	A	c	c	c	c	c	3
d	B	d	d	d	d	d	4
e	▷	e	e	e	e	e	5
f	▯▯	f	f	f	f	f	DVD
g	——	g	g	g	g	g	PBC
h	——	□	TITLE	□	CHP.	TRK.	CD
i	——	——	□	——	——	——	V

Function Schematic Diagram
Parts Location Guide

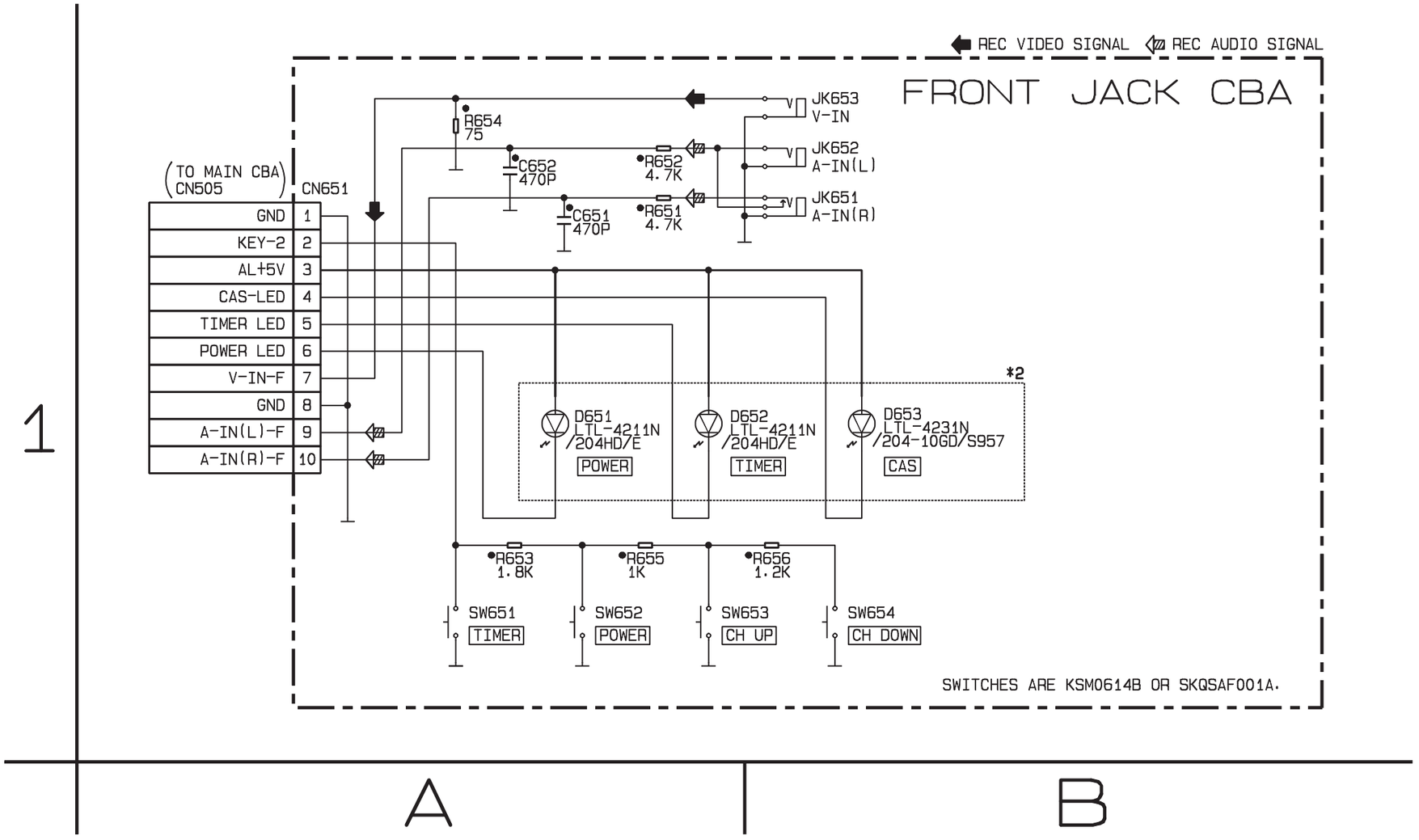
Ref No.	Position
CAPACITORS	
C2001	C-2
C2002	C-1
C2004	C-1
C2010	B-3
C2012	C-1
C2055	B-1
CONNECTORS	
CL2004	A-2
CN2001	A-1
DIODES	
D2001	B-2
D2003	B-2
D2004	B-2
D2005	D-2
IC	
IC2001	C-2
COILS	
L2001	C-1
L2003	C-1
L2004	B-1
TRANSISTOR	
Q2022	A-2
RESISTORS	
R1041	B-1
R2001	C-3
R2002	B-2
R2003	B-2
R2005	C-1
R2006	A-1
R2010	A-2
R2011	A-2
R2031	B-1
R2032	B-1
R2034	B-1
R2037	C-2
R2038	B-1
R2059	B-1
SWITCH	
SW2014	A-1
MISCELLANEOUS	
FL2001	B-3
RM2001	C-1

Front Jack Schematic Diagram < VCR Section >

***2 Note:**
When it is necessary to replace one or more of the following Diodes, all four should be replaced: D652, D653, D654, D655.



"●" = SMD



Front Jack Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C651	A-1
C652	A-1
CONNECTOR	
CN651	A-1
DIODES	
D651	A-1
D652	A-1
D653	B-1
RESISTORS	
R651	A-1
R652	A-1
R653	A-1
R654	A-1
R655	A-1
R656	B-1
SWITCHES	
SW651	A-1
SW652	A-1
SW653	A-1
SW654	B-1
MISCELLANEOUS	
JK651	B-1
JK652	B-1
JK653	B-1

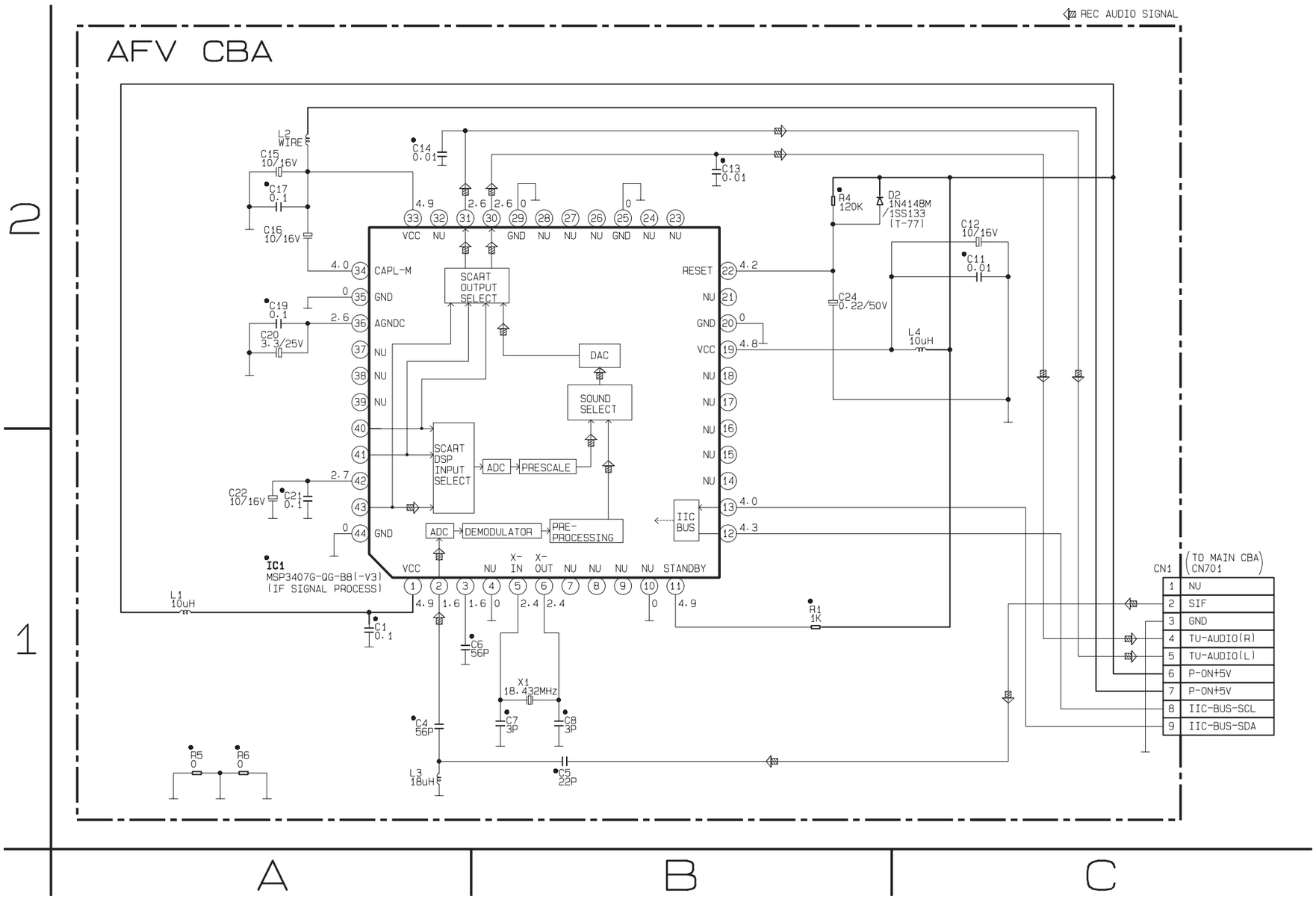
AFV Schematic Diagram < VCR Section >

"●" = SMD

MODE: SP/REC — 1 (5.0) — 2 (~) — 3 (5.0 / (2.5)) — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.



AFV Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C1	A-1
C4	A-1
C5	B-1
C6	B-1
C7	B-1
C8	B-1
C11	C-2
C12	C-2
C13	B-2
C14	A-2
C15	A-2
C16	A-2
C17	A-2
C19	A-2
C20	A-2
C21	A-1
C22	A-1
C24	B-2
CONNECTOR	
CN1	C-1
DIODE	
D2	B-2
IC	
IC1	A-1
COILS	
L1	A-1
L2	A-2
L3	A-1
L4	C-2
RESISTORS	
R1	B-1
R4	B-2
R5	A-1
R6	A-1
CRYSTAL OSCILLATOR	
X1	B-1

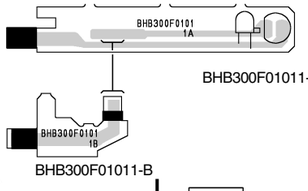
Main CBA Parts Location Guide

Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position
CAPACITORS		CAPACITORS		CAPACITORS		CAPACITORS		DIODES		COILS		RESISTORS		RESISTORS		RESISTORS		RESISTORS	
C055	B-4	C336	C-3	C481	C-4	C1058	B-3	D053	B-2	L452	C-3	R058	A-2	R327	C-3	R507	A-1	R589	A-1
C056	B-4	C337	C-3	C482	C-3	C1059	A-3	D054	A-2	L501	B-1	R059	A-2	R328	C-3	R508	G-2	R591	F-1
C057	A-2	C338	C-3	C483	C-3	C1060	A-3	D055	B-3	L502	C-1	R060	A-2	R330	C-3	R509	C-2	R632	B-2
C058	B-2	C339	C-3	C484	C-3	C1061	A-3	D056	B-3	L503	C-2	R062	B-2	R331	C-3	R511	F-1	R633	B-1
C059	B-3	C340	C-3	C487	C-3	C1062	A-3	D057	B-3	L701	F-4	R064	B-3	R332	C-3	R512	C-1	R634	C-1
C060	B-3	C341	C-3	C488	C-3	C1067	A-2	D101	E-5	L702	G-5	R065	B-2	R333	C-2	R513	E-1	R635	C-1
C063	A-2	C343	C-3	C505	D-2	C1068	A-2	D102	E-5	L703	G-4	R101	C-5	R334	C-2	R514	F-1	R636	B-1
C101	C-5	C344	D-3	C506	B-1	C1201	B-4	D103	C-5	L704	F-5	R102	C-5	R335	C-3	R515	G-2	R637	C-1
C102	C-5	C345	D-3	C508	B-1	C1202	B-5	D104	D-5	L1251	B-5	R103	C-5	R336	C-3	R516	F-1	R703	G-5
C103	C-5	C346	D-3	C509	E-1	C1203	B-4	D105	E-5	L1521	A-5	R104	C-5	R337	C-3	R517	D-2	R704	F-2
C104	E-5	C347	D-3	C510	E-1	C1204	B-5	D106	D-5	TRANSISTORS		R105	C-5	R339	D-3	R519	F-1	R705	F-2
C105	E-5	C348	D-3	C511	E-1	C1205	B-4	D107	E-5	Q051	B-4	R106	C-5	R401	E-4	R520	G-2	R706	G-3
C106	E-5	C349	D-3	C513	D-1	C1206	B-5	D108	D-5	Q052	B-4	R107	C-5	R402	D-4	R522	G-2	R751	B-4
C107	E-5	C402	D-4	C514	E-1	C1207	B-4	D109	D-5	Q053	A-1	R108	C-5	R403	E-4	R523	F-1	R752	C-4
C108	F-5	C403	D-4	C516	D-1	C1208	B-4	D110	E-5	Q054	B-2	R109	E-5	R404	E-4	R524	G-2	R753	C-4
C109	D-5	C404	D-4	C517	D-1	C1221	B-4	D112	F-5	Q055	A-2	R110	E-5	R405	C-4	R525	F-1	R755	C-4
C110	E-5	C405	D-4	C519	D-1	C1222	B-4	D113	F-5	Q056	A-2	R111	F-5	R406	D-4	R526	D-1	R756	C-5
C111	E-5	C406	E-4	C521	D-1	C1245	B-5	D115	D-5	Q057	B-3	R112	E-5	R407	D-4	R528	F-1	R757	C-5
C112	D-5	C407	D-4	C522	D-1	C1246	A-4	D118	D-5	Q101	C-5	R113	E-5	R408	D-3	R529	G-2	R1051	A-4
C113	D-5	C408	D-4	C524	E-2	C1247	A-4	D119	D-5	Q102	C-5	R114	E-5	R409	D-3	R530	C-1	R1052	A-4
C114	F-5	C409	D-4	C527	C-1	C1249	B-4	D121	E-5	Q103	F-5	R116	E-5	R410	D-4	R531	C-1	R1053	B-3
C116	D-5	C410	D-4	C531	E-1	C1351	A-5	D301	C-3	Q104	E-5	R117	F-5	R411	D-4	R532	D-1	R1054	A-3
C117	F-5	C411	D-3	C533	E-2	C1352	B-5	D506	C-1	Q105	F-5	R118	E-5	R412	E-4	R533	C-1	R1055	A-4
C118	C-5	C412	D-3	C534	C-1	C1353	B-5	D507	D-1	Q301	F-4	R119	D-5	R413	D-4	R534	F-1	R1056	B-3
C119	E-5	C413	D-3	C535	C-1	C1354	B-5	D508	F-1	Q302	D-3	R120	F-5	R414	D-3	R535	E-1	R1058	A-3
C121	C-5	C414	D-4	C538	C-2	C1356	B-5	D510	E-2	Q401	E-4	R121	F-5	R415	D-3	R536	E-1	R1059	A-3
C127	E-5	C415	D-3	C539	D-2	C1391	A-4	D511	C-2	Q402	E-4	R122	F-5	R416	D-3	R537	E-1	R1060	B-3
C251	C-3	C416	B-3	C540	D-2	C1401	B-5	D512	C-2	Q403	C-4	R123	E-5	R417	D-3	R538	D-1	R1061	A-3
C252	C-3	C417	E-3	C541	C-1	C1421	B-5	D513	F-1	Q404	D-4	R124	D-5	R418	D-3	R539	E-2	R1066	B-4
C253	D-3	C418	D-3	C542	C-1	C1422	B-5	D555	D-2	Q405	E-4	R125	E-5	R419	D-4	R540	E-2	R1080	A-2
C254	C-3	C419	E-4	C543	C-1	C1441	B-5	D701	G-5	Q406	D-3	R126	F-5	R420	E-4	R541	G-2	R1081	A-2
C301	D-3	C420	D-3	C544	C-1	C1442	B-5	D751	C-4	Q451	C-3	R128	D-5	R421	E-4	R542	F-1	R1201	B-4
C302	D-3	C421	D-3	C545	D-2	C1445	D-5	D1051	A-3	Q501	G-2	R129	C-5	R451	B-3	R543	D-1	R1202	A-4
C303	E-3	C451	B-3	C546	D-2	C1461	B-5	D1052	A-3	Q502	G-2	R130	D-5	R452	C-3	R544	D-1	R1203	C-4
C305	D-3	C452	C-3	C547	D-2	C1462	C-5	D1053	A-3	Q506	D-2	R131	C-5	R453	B-3	R545	F-1	R1204	B-5
C306	E-3	C453	C-3	C548	C-1	C1471	B-5	D1056	A-3	Q507	G-2	R133	F-5	R454	C-3	R546	C-1	R1205	C-4
C307	E-3	C454	C-3	C549	C-1	C1481	B-5	D1060	A-3	Q508	C-1	R134	F-5	R455	B-3	R547	C-1	R1206	B-5
C308	D-3	C455	B-3	C550	C-1	C1482	D-5	D1401	B-5	Q509	C-1	R136	D-5	R456	B-3	R548	C-1	R1207	B-4
C309	D-2	C456	B-3	C553	C-1	C1486	B-5	D1402	B-5	Q510	E-1	R137	D-5	R457	B-3	R550	C-1	R1208	B-5
C310	D-3	C457	B-3	C554	E-2	C1523	B-5	D1501	B-5	Q511	E-1	R138	D-5	R458	B-3	R553	C-1	R1209	B-4
C311	D-2	C458	B-3	C555	E-2	C1531	C-5	ICS		Q513	C-2	R140	E-5	R459	B-3	R555	B-1	R1210	B-5
C312	D-3	C459	B-3	C631	B-1	C1532	C-5	IC301	D-3	Q514	C-2	R251	C-3	R460	B-3	R557	E-2	R1211	B-4
C313	D-3	C460	B-3	C632	B-1	C1534	A-5	IC451	C-3	Q515	C-1	R252	C-3	R461	B-3	R563	C-1	R1212	B-5
C314	E-3	C461	B-3	C633	B-1	C2058	B-5	IC501	D-1	Q752	C-4	R301	D-3	R462	C-3	R565	E-2	R1221	B-5
C315	E-3	C462	B-3	C634	B-1	CONNECTORS		IC502	D-2	Q1051	B-3	R303	E-3	R463	B-3	R566	E-2	R1222	C-5
C316	D-3	C463	C-3	C635	C-1	CL051A	B-3	IC631	B-1	Q1052	A-4	R304	D-2	R464	B-3	R567	E-1	R1223	B-4
C317	E-3	C464	C-3	C636	C-1	CL050A	A-4	IC751	C-4	Q1053	A-3	R305	E-3	R465	C-3	R568	E-2	R1224	B-4
C319	D-2	C465	C-3	C637	B-1	CL050B	A-4	IC1052	B-3	Q1054	A-3	R306	D-2	R466	C-3	R569	E-1	R1225	B-4
C320	D-2	C466	C-3	C701	G-4	CL251	C-3	IC1053	B-3	Q1055	A-3	R307	D-3	R467	B-3	R570	C-1	R1226	B-5
C321	D-3	C467	C-3	C703	G-4	CL501	C-4	IC1201	B-4	Q1057	B-3	R310	E-3	R468	B-3	R572	C-2	R1235	A-5
C322	D-2	C468	C-3	C706	G-5	CL502	F-2	IC1204	A-5	Q1201	B-4	R311	D-2	R469	C-3	R574	C-1	R1236	A-5
C323	E-3	C469	C-4	C708	F-5	CL504	E-4	IC1402	B-5	Q1202	B-4	R314	E-3	R470	C-4	R575	C-1	R1237	A-4
C324	E-3	C470	C-3	C709	G-5	CL506	A-1	COILS		Q1203	A-4	R315	E-3	R471	B-4	R576	C-1	R1238	A-5
C325	E-3	C471	C-4	C711	G-3	CL508	E-4	L051	A-4	Q1204	B-4	R316	E-3	R472	B-4	R577	D-2	R1239	A-4
C326	E-3	C472	C-3	C712	G-5	CL2003	A-1	L052	B-4	Q1351	A-5	R317	E-4	R473	C-3	R578	D-2	R1240	A-5
C327	D-2	C473	C-3	C714	G-5	CN505	G-3	L053	B-2	Q1501	A-5	R318	E-4	R475	C-4	R581	C-2	R1245	B-5
C328	D-3	C474	C-4	C751	C-4	CN701	G-3	L101	E-5	Q1502	A-4	R319	E-3	R476	C-3	R582	C-2	R1246	B-5
C329	E-3	C475	C-3	C752	C-4	CN1001	A-2	L102	F-5	RESISTORS		R320	C-3	R501	D-1	R583	C-2	R1247	A-4
C330	F-4	C476	C-3	C753	C-4	CN1601	A-5	L251	C-3	R051	B-4	R321	D-2	R502	D-1	R584	C-2	R1352	A-5
C331	F-4	C477	C-4	C754	C-4	CN2002	A-3	L302	C-3	R052	B-4	R322	C-3	R503	E-1	R585	C-2	R1353	A-5
C333	C-3	C478	C-4	C755	C-5	DIODES		L401	E-3	R053	B-4	R323	D-2	R504	E-1	R586	C-2	R1354	A-5
C334	C-3	C479	C-3	C756	C-5	D051	B-4	L402	C-4	R054	B-4	R325	C-3	R505	E-1	R587	C-3	R1355	B-5
C335	C-3	C480	C-3	C1054	A-3	D052	B-4	L451	C-3	R055	A-2	R326	C-3	R506	B-1	R588	C-3	R1356	B-5

Ref No.	Position
RESISTORS	
R1360	A-5
R1364	B-5
R1392	A-4
R1393	A-4
R1394	A-4
R1395	A-4
R1401	A-5
R1421	A-5
R1422	B-5
R1441	A-5
R1442	B-5
R1461	A-5
R1471	A-5
R1481	A-5
R1501	B-5
R1502	A-5
R1521	B-5
R2039	A-1
SWITCHES	
SW501	D-1
SW502	D-1
SW503	E-1
SW504	E-1
SW505	E-1
SW506	C-1
SW507	F-1
SW508	E-1
SW511	B-2
SW2011	C-1
SW2012	B-1
SW2016	C-1
SW2017	B-1
VARIABLE RESISTORS	
VR501	G-2
CRYSTAL OSCILLATORS	
X301	E-3
X501	C-1
X502	C-1
MISCELLANEOUS	
JK101	E-5
JK102	E-5
JK751	C-5
JK1202	B-5
JK1401	B-5
PS502	C-2
TU701	G-4
TEST POINTS	
TP301	F-4
TP501	B-1
TP502	B-2
TP503	G-2
TP504	B-2
TP751	E-4

Main CBA Top View

Sensor CBA Top View (End Sensor)



WF1
TP751
V-OUT

WF3
TP301
C-PB

TP502
END-S

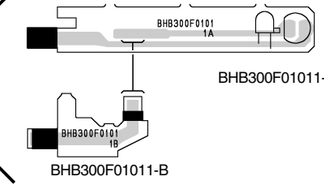
WF2
TP504
RF-SW

TP501
S-INH

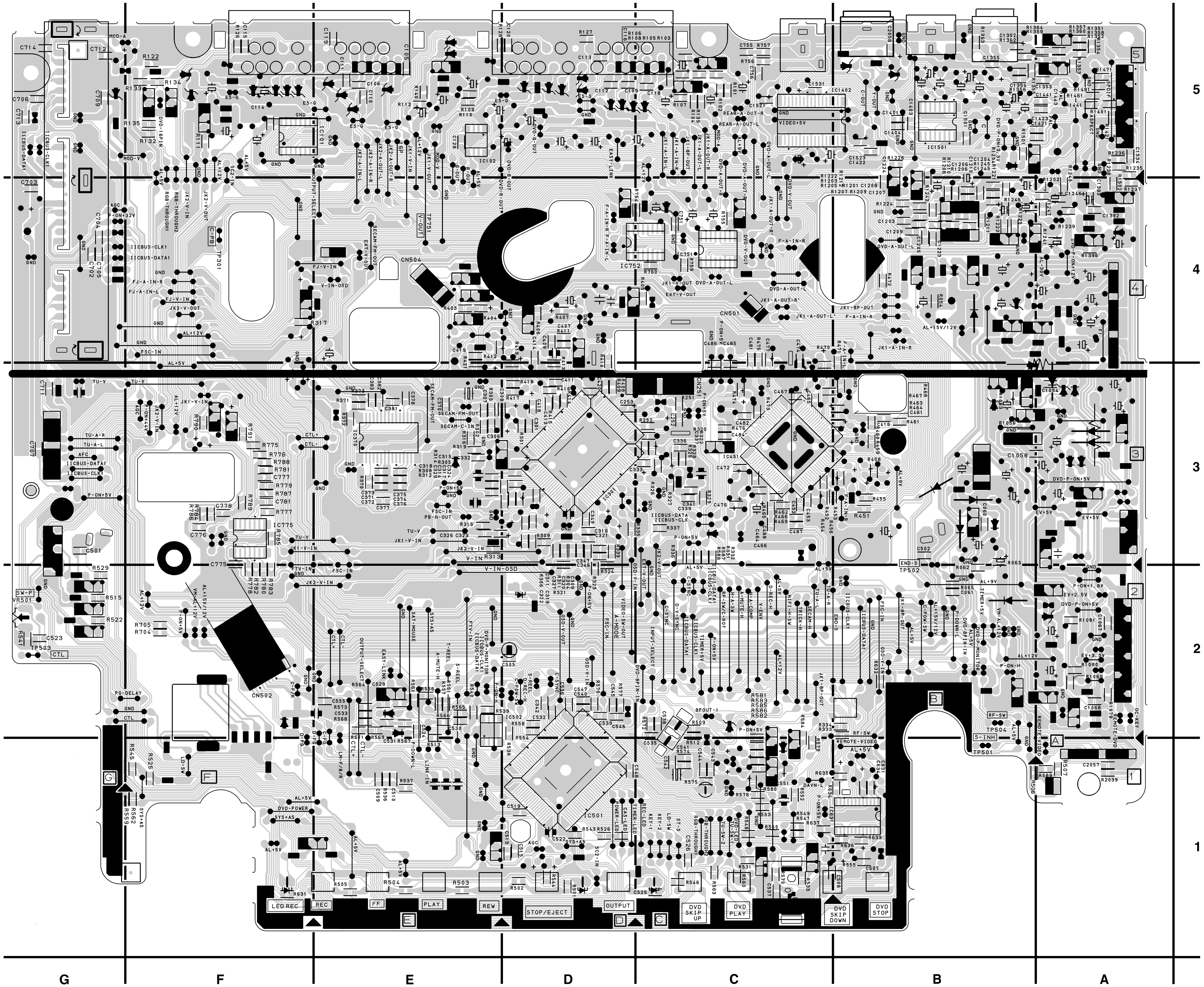
VR501
SW-P

TP503
CTL

Sensor CBA Top View (Start Sensor)



Main CBA Bottom View



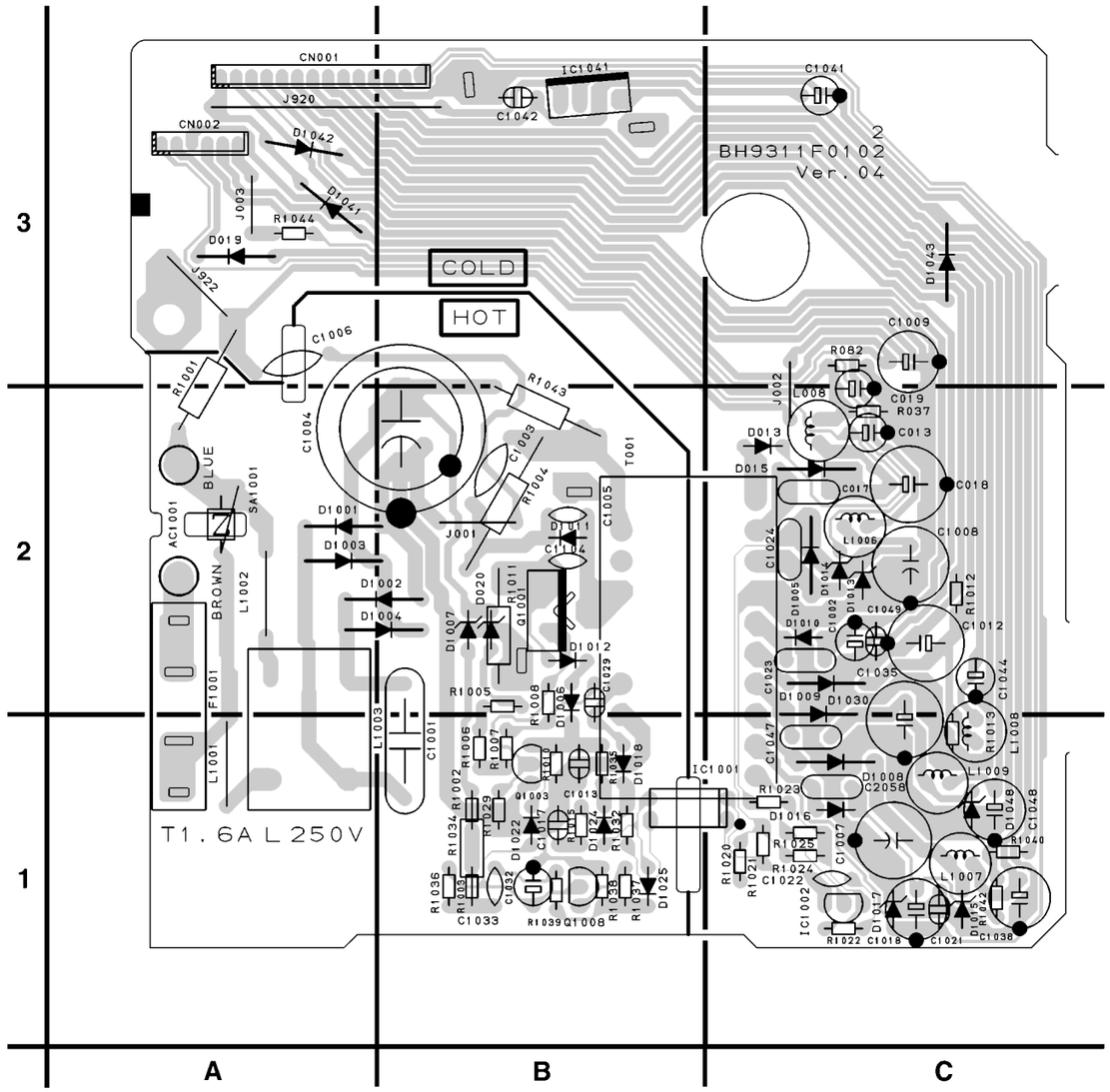
POWER SUPPLY CBA Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		DIODES	
C013	C-2	D1041	A-3
C018	C-2	D1042	A-3
C019	C-2	D1043	C-3
C1001	B-1	ICS	
C1002	C-2	IC1001	B-1
C1003	B-2	IC1002	C-1
C1004	A-2	IC1041	B-3
C1005	B-2	COILS	
C1006	A-3	J922	A-3
C1007	C-1	L008	C-2
C1008	C-2	L1001	A-1
C1009	C-3	L1002	A-2
C1012	C-2	L1003	A-1
C1013	B-1	L1006	C-2
C1018	C-1	L1007	C-1
C1021	C-1	L1008	C-1
C1022	C-1	L1009	C-1
C1029	B-2	TRANSISTORS	
C1032	B-1	Q1001	B-2
C1033	B-1	Q1003	B-1
C1035	C-2	Q1008	B-1
C1038	C-1	RESISTORS	
C1044	C-2	R037	C-2
C1048	C-1	R082	C-3
C1049	C-2	R1002	B-1
CONNECTORS		R1003	B-1
CN001	A-3	R1004	B-3
CN002	A-3	R1005	B-2
DIODES		R1006	B-1
D013	C-2	R1007	B-1
D015	C-2	R1008	B-1
D019	A-3	R1010	B-1
D020	B-2	R1011	B-2
D1001	A-2	R1012	C-2
D1002	A-2	R1013	C-1
D1003	A-2	R1020	C-1
D1004	A-2	R1021	C-1
D1005	C-2	R1022	C-1
D1006	B-1	R1023	C-1
D1007	B-2	R1024	C-1
D1008	C-1	R1029	B-1
D1009	C-2	R1032	B-1
D1010	C-2	R1035	B-1
D1011	B-2	R1036	B-1
D1012	B-2	R1037	B-1
D1013	C-2	R1038	B-1
D1014	C-2	R1039	B-1
D1015	C-1	R1040	C-1
D1016	C-1	R1042	C-1
D1017	C-1	R1043	B-3
D1018	B-1	R1044	A-3
D1022	B-1	MISCELLANEOUS	
D1024	B-1	AC1001	A-2
D1025	B-1	F1001	B-2
D1030	C-2	T001	A-2

Power Supply CBA Top View

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

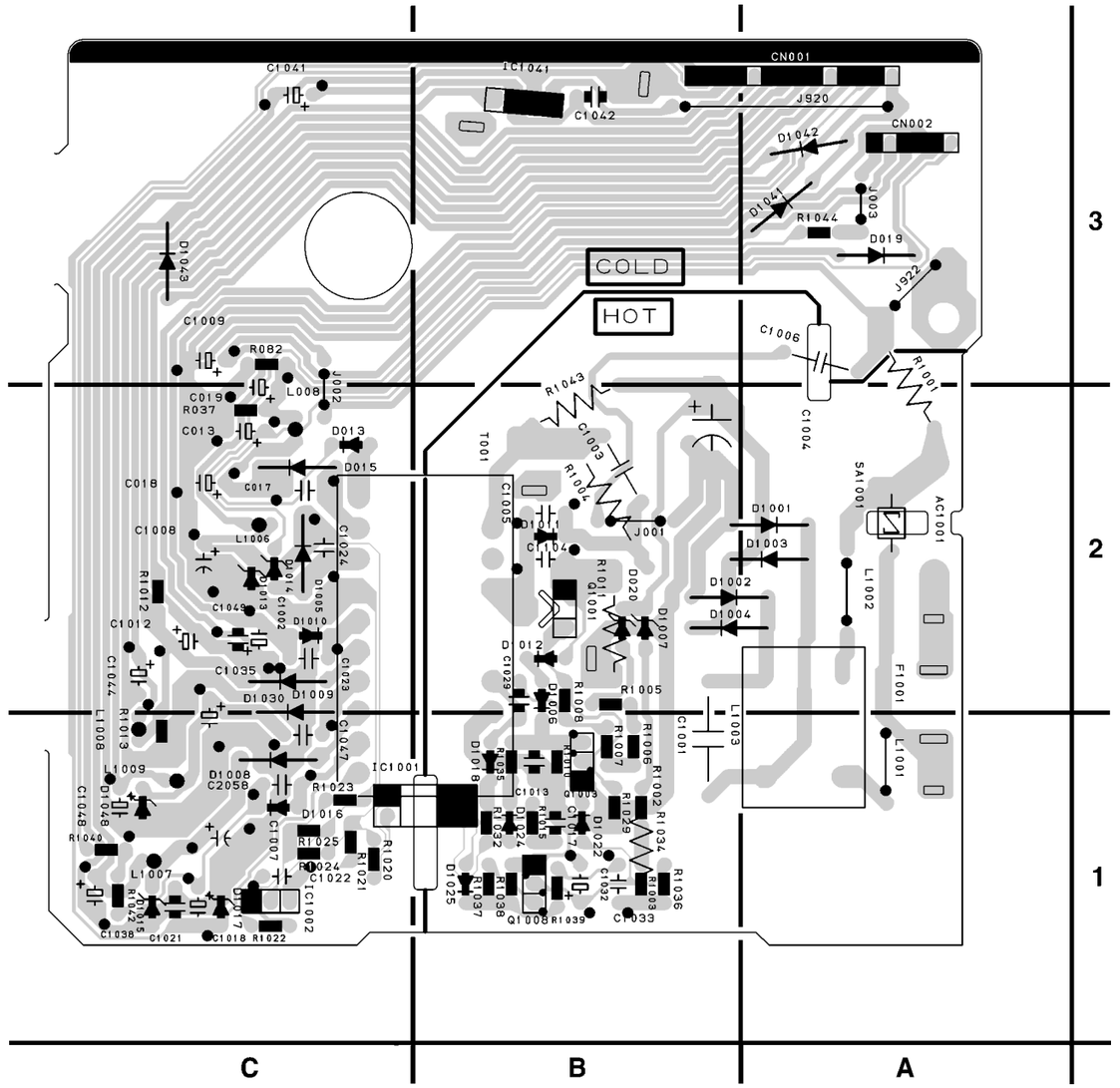
NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



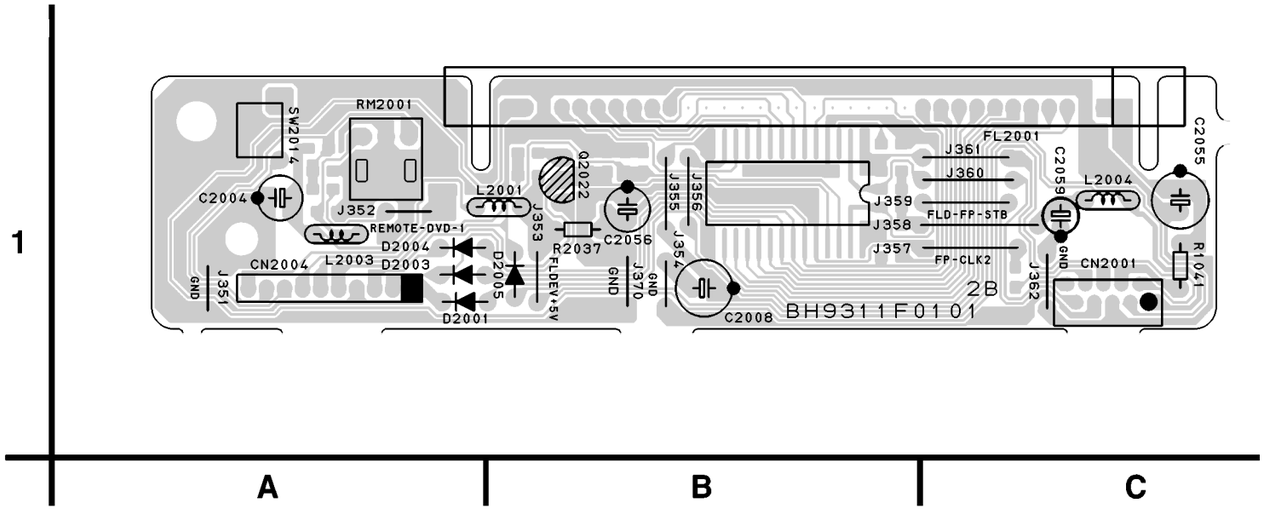
Power Supply CBA Bottom View

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT , AN ISOLATION TRANSFORMER MUST BE USED. ALSO , IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY , WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT , A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

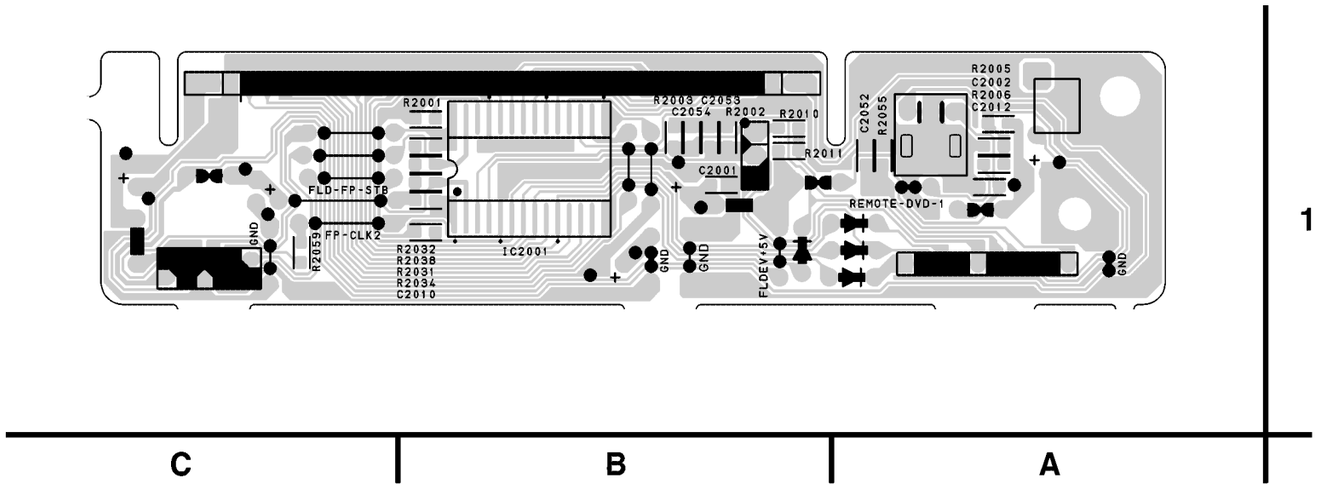
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.



Function CBA Top View



Function CBA Bottom View

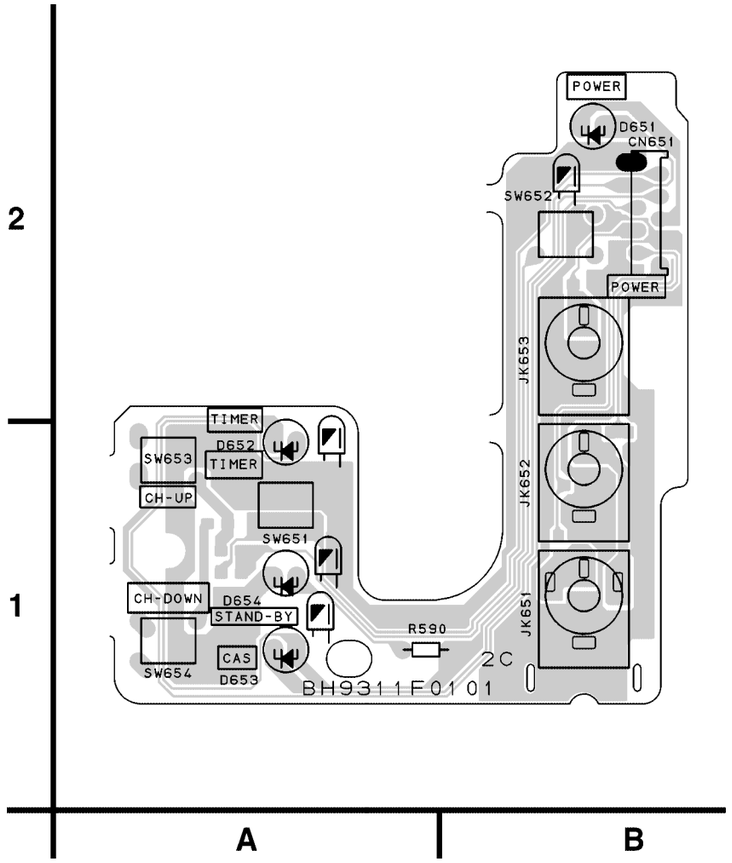


BH9311F01012-B

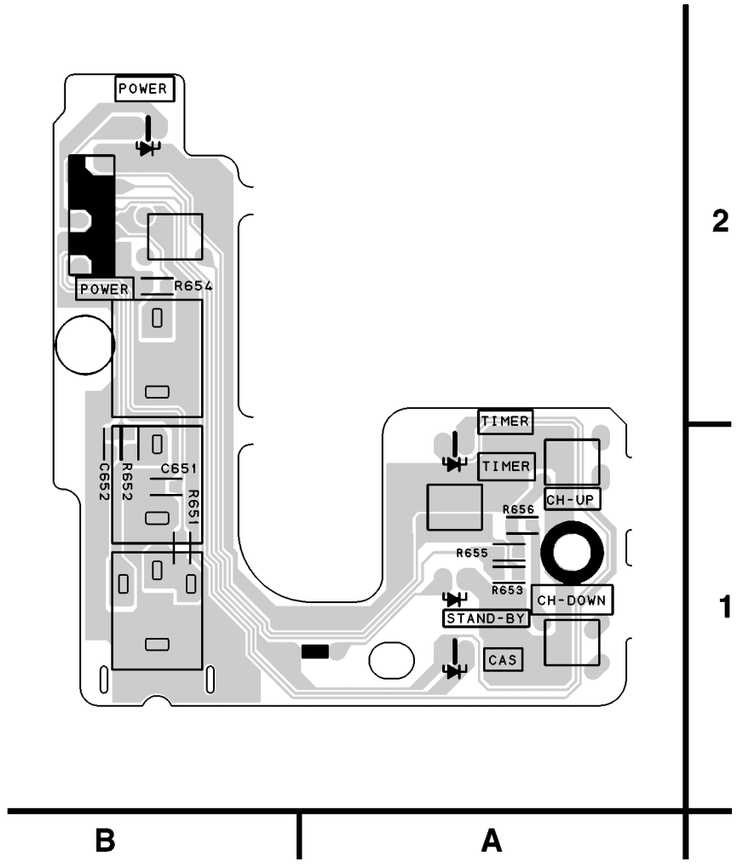
FUNCTION CBA
Parts Location Guide

Ref No.	Position
CAPACITORS	
C2001	B-1
C2002	A-1
C2004	A-1
C2010	B-1
C2012	A-1
C2055	C-1
CONNECTORS	
CL2004	A-1
CN2001	C-1
DIODES	
D2001	A-1
D2003	A-1
D2004	A-1
D2005	B-1
IC	
IC2001	B-1
COILS	
L2001	A-1
L2003	A-1
L2004	C-1
TRANSISTOR	
Q2022	B-1
RESISTORS	
R1041	C-1
R2001	B-1
R2002	B-1
R2003	B-1
R2005	A-1
R2006	A-1
R2010	B-1
R2011	B-1
R2031	B-1
R2032	B-1
R2034	B-1
R2037	B-1
R2038	B-1
R2059	C-1
SWITCH	
SW2014	A-1
MISCELLANEOUS	
FL2001	C-1
RM2001	A-1

Front Jack CBA Top View



Front Jack CBA Bottom View

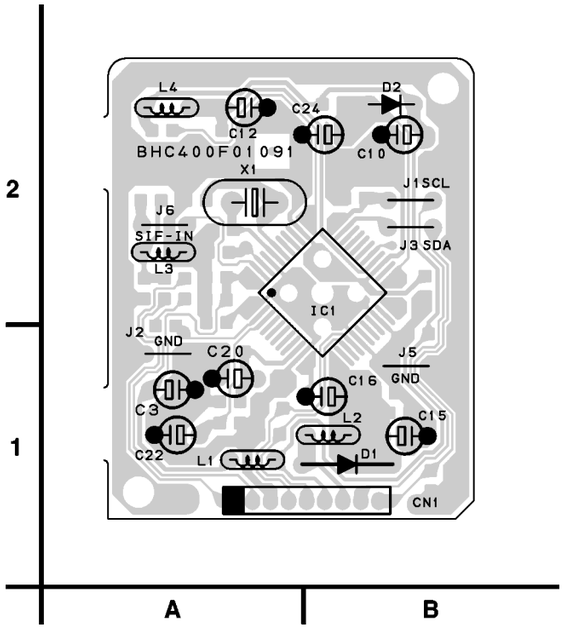


FRONT JACK CBA
Parts Location Guide

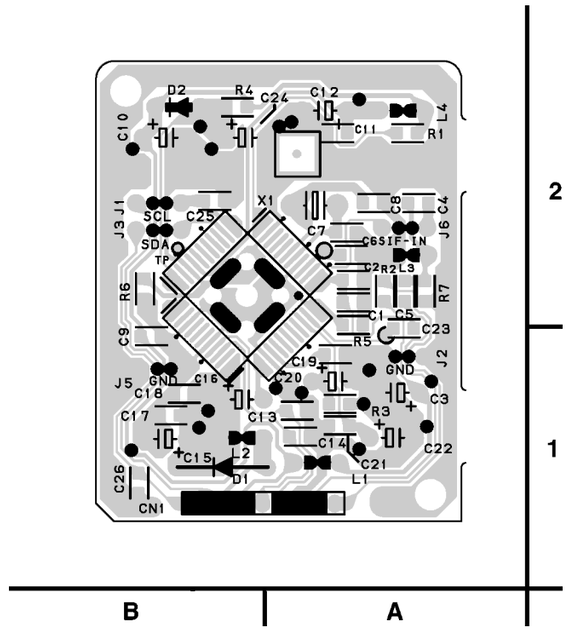
Ref No.	Position
CAPACITORS	
C651	B-1
C652	B-1
CONNECTOR	
CN651	B-2
DIODES	
D651	B-2
D652	A-1
D653	A-1
RESISTORS	
R651	B-1
R652	B-1
R653	A-1
R654	B-2
R655	A-1
R656	A-1
SWITCHES	
SW651	A-1
SW652	B-2
SW653	A-1
SW654	A-1
MISCELLANEOUS	
JK651	B-1
JK652	B-1
JK653	B-2

BH9311F01012-C

AFV CBA Top View



AFV CBA Bottom View

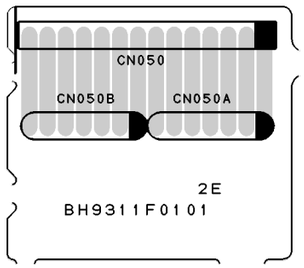


BHC400F01091

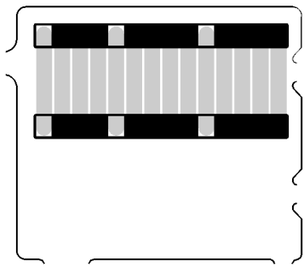
AFV CBA Parts Location Guide

Ref No.	Position	Ref No.	Position	Ref No.	Position
CAPACITORS		CAPACITORS		COILS	
C1	A-2	C17	B-1	L1	A-1
C4	A-2	C19	A-1	L2	B-1
C5	A-2	C20	A-1	L3	A-2
C6	A-2	C21	A-1	L4	A-2
C7	A-2	C22	A-1	RESISTORS	
C8	A-2	C24	A-2	R1	A-2
C11	A-2	CONNECTOR		R4	B-2
C12	A-2	CN1	B-1	R5	A-1
C13	B-1	DIODE		R6	B-2
C14	A-1	D2	B-2	CRYSTAL OSCILLATOR	
C15	B-1	IC		X1	A-2
C16	B-1	IC1	B-2		

Junction-A CBA Top View

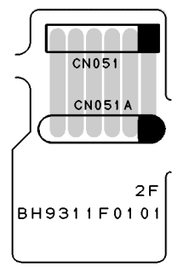


Junction-A CBA Bottom View

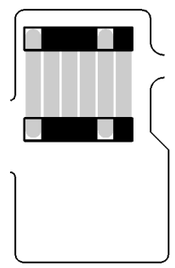


BH9311F01012-E

Junction-B CBA Top View



Junction-B CBA Bottom View



BH9311F01012-F

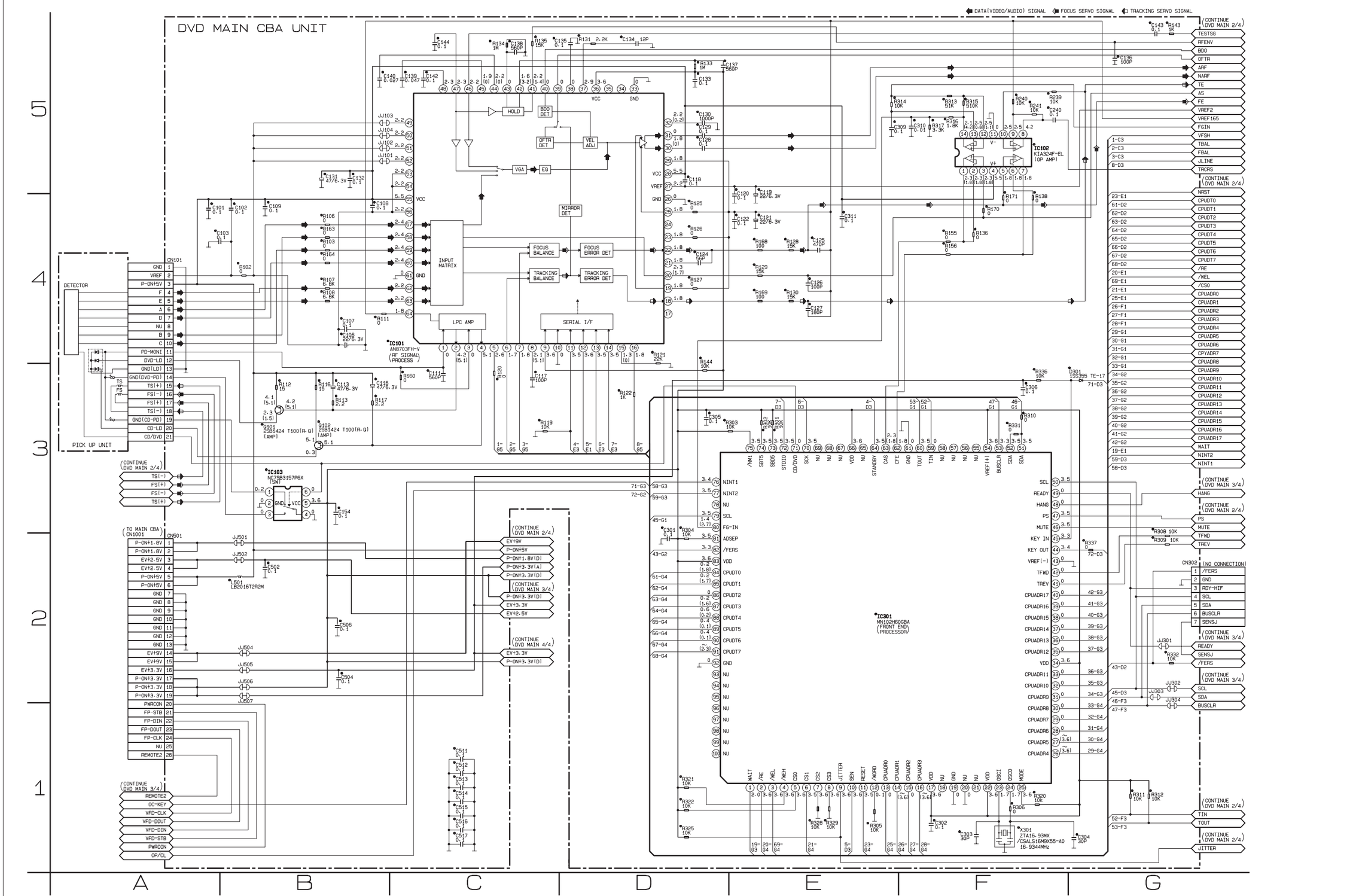
DVD Main 1/4 Schematic Diagram < DVD Section >

"●" = SMD

MODE: SP/REC — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.



DVD_MAIN 1/4
02/7/2

H9330SCD1

DVD Main 2/4 Schematic Diagram < DVD Section >

"●" = SMD

MODE: SP/REC — 1 (5.0) 2 (~) 3 (5.0 / (2.5)) — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

DATA(VIDEO/AUDIO) SIGNAL · FOCUS SERVO SIGNAL · TRACKING SERVO SIGNAL · DISK SERVO SIGNAL · SLIDE SERVO SIGNAL

DVD MAIN CBA UNIT

1-11-52 1-11-53 1-11-54 H9330SCD2

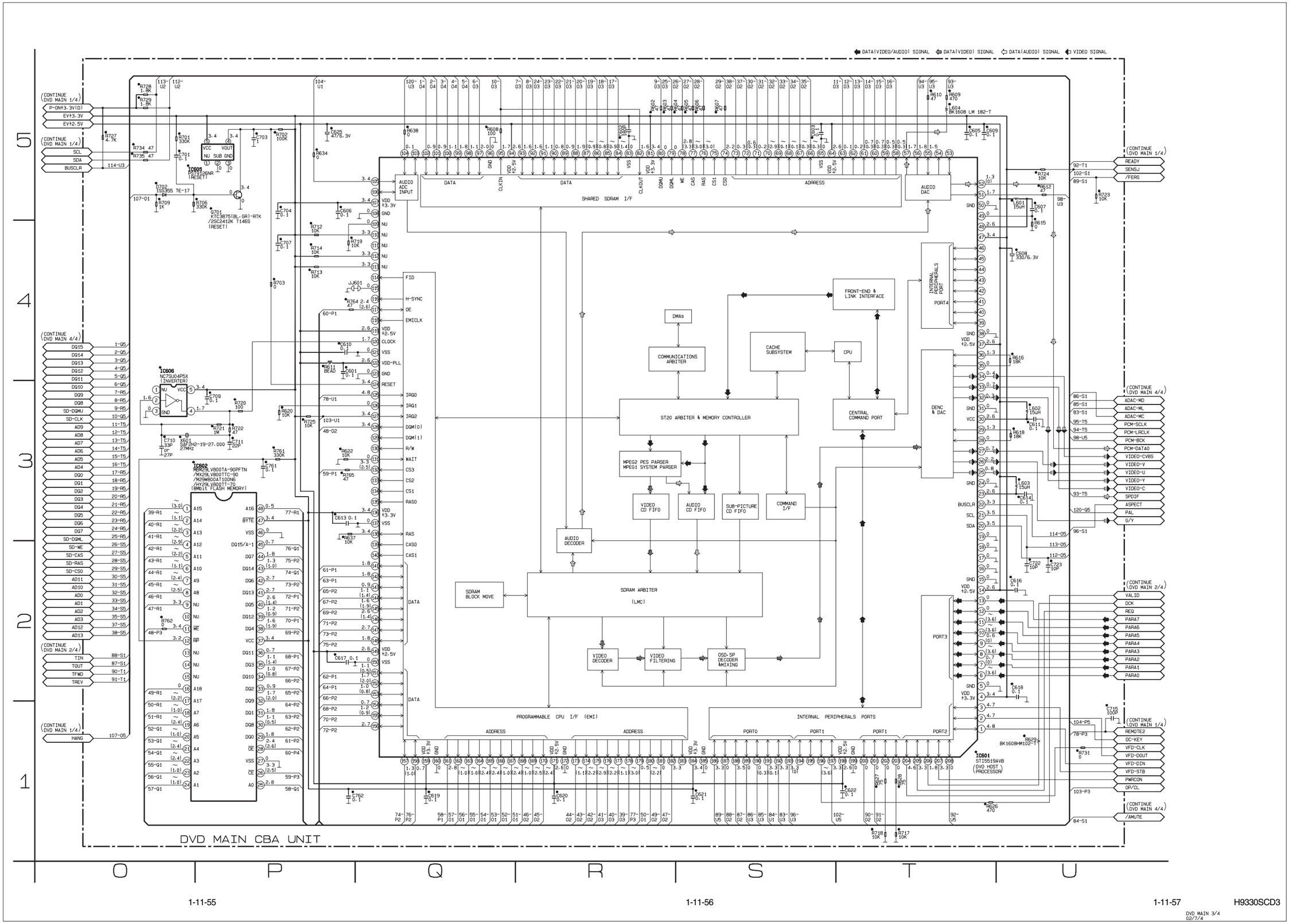
DVD Main 3/4 Schematic Diagram < DVD Section >

"●" = SMD

MODE: SP/REC — PLAY MODE / REC MODE

THE SAME VOLTAGE FOR BOTH PLAY & REC MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.



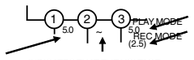
1-11-55 1-11-56 1-11-57 H9330SCD3

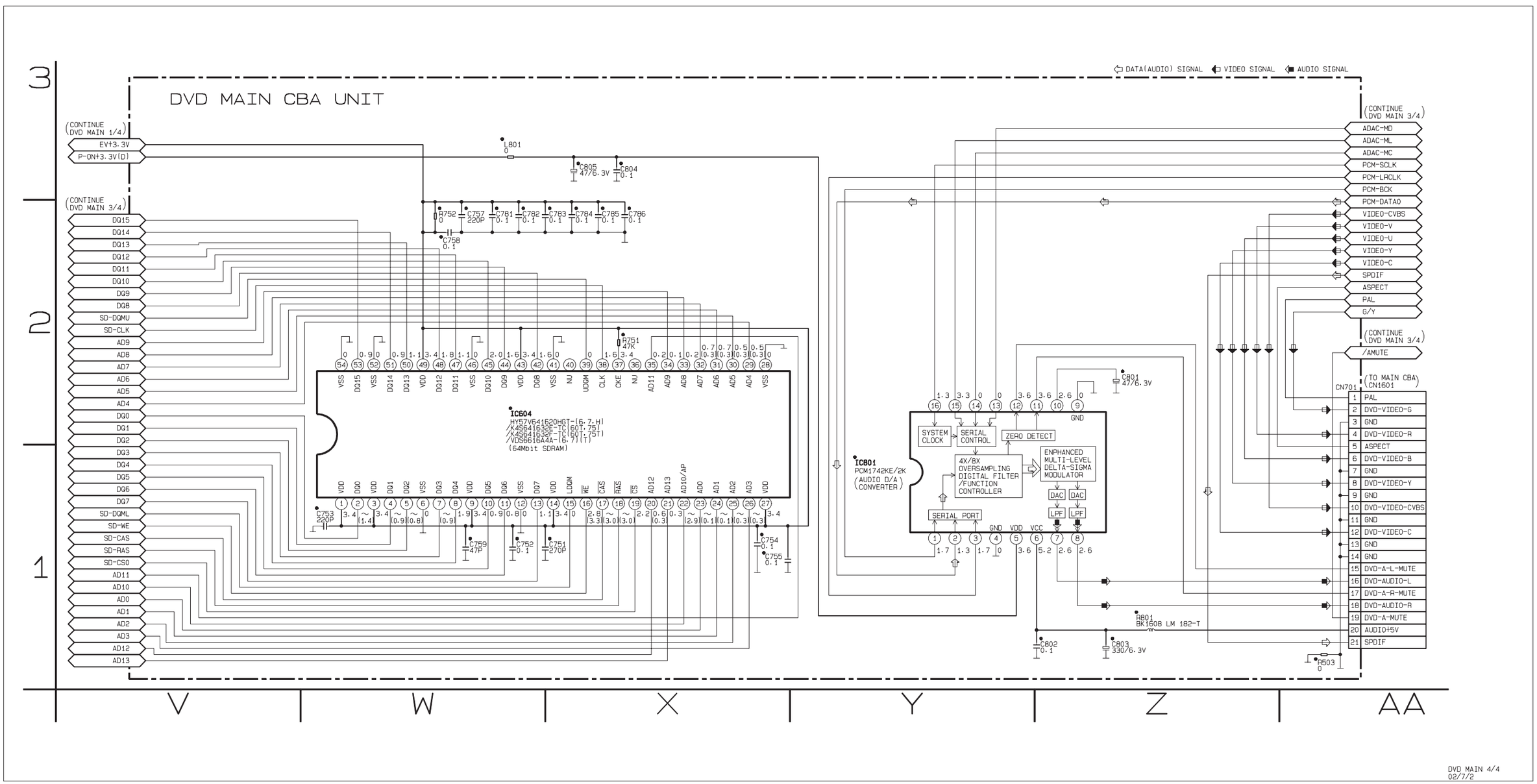
DVD MAIN 3/4
02/7/4

DVD Main 4/4 Schematic Diagram < DVD Section >

"●" = SMD

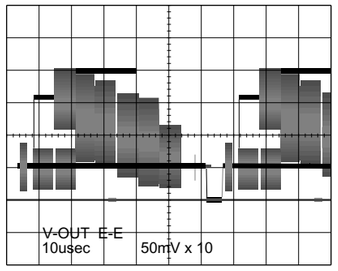
MODE: SP/REC





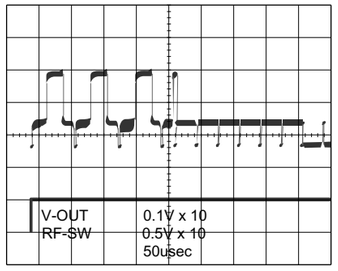
WAVEFORMS

WF1 (TP751 of Main CBA)



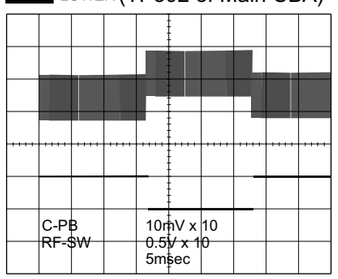
WF1 UPPER (TP751 of Main CBA)

WF2 LOWER (TP302 of Main CBA)



WF5 UPPER (TP301 of Main CBA)

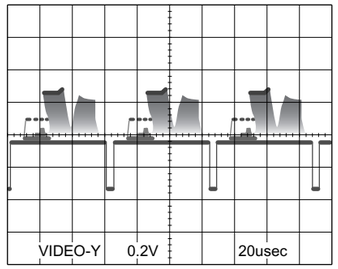
WF2 LOWER (TP302 of Main CBA)



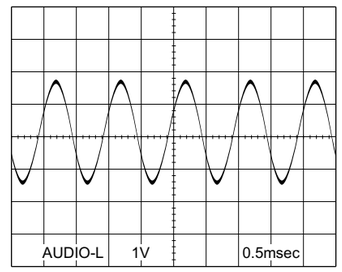
WAVEFORMS

NOTE:
Input
CD: 1kHz PLAY
(WF4~WF6)
DVD: POWER ON (STOP) MODE
(WF1~WF3)

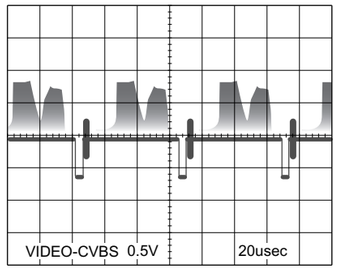
WF1 Pin 5 of CN1601



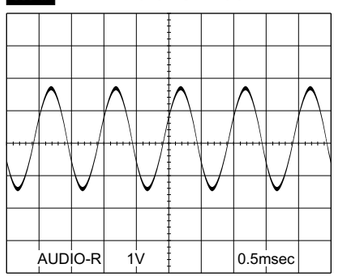
WF4 Pin 13 of CN1601



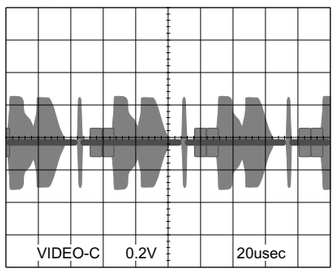
WF2 Pin 7 of CN1601



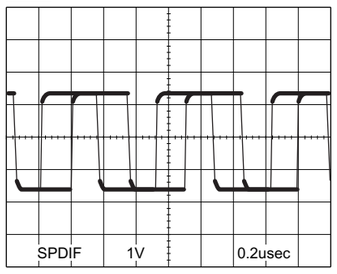
WF5 Pin 15 of CN1601



WF3 Pin 9 of CN1601

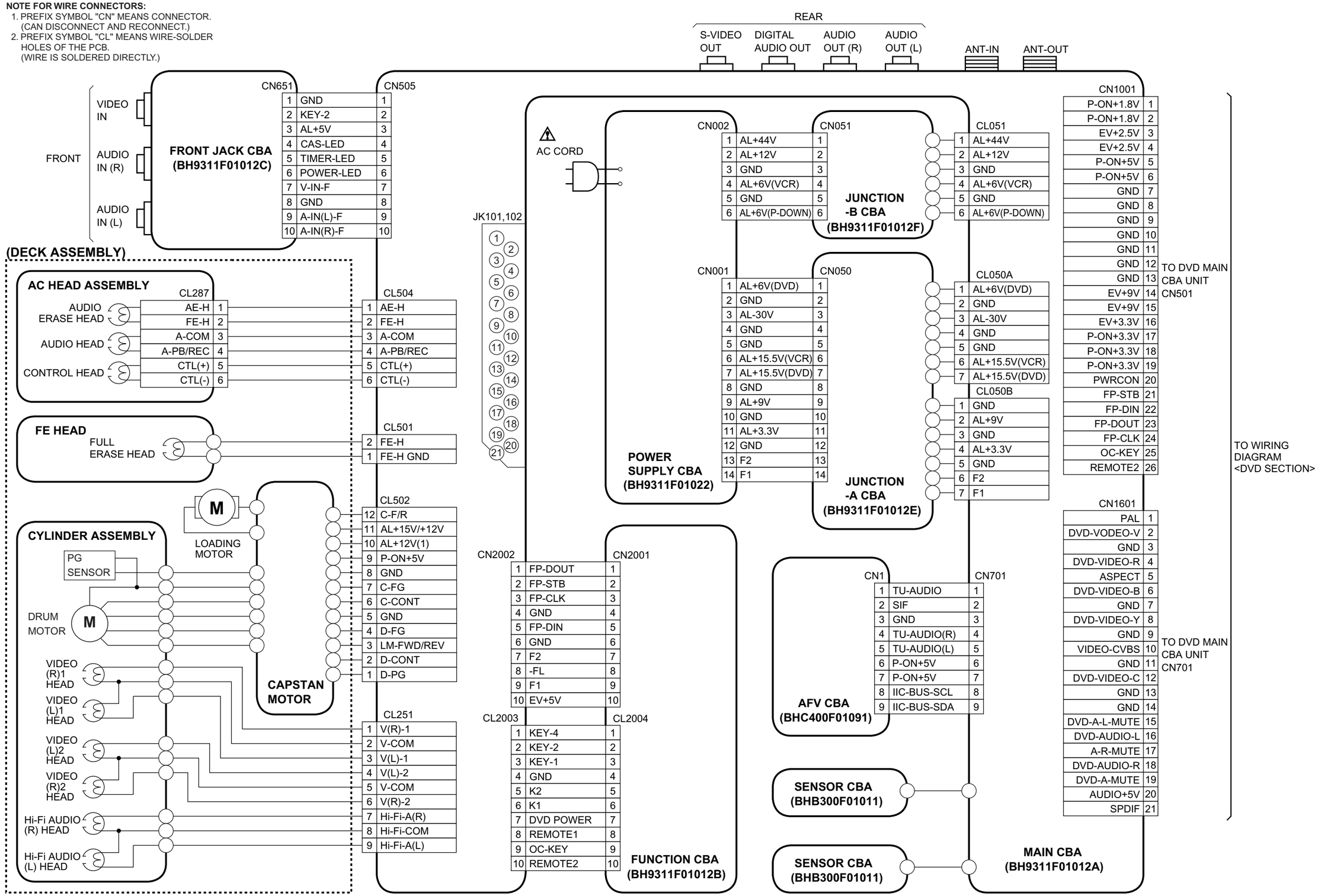


WF6 Pin 18 of CN1601

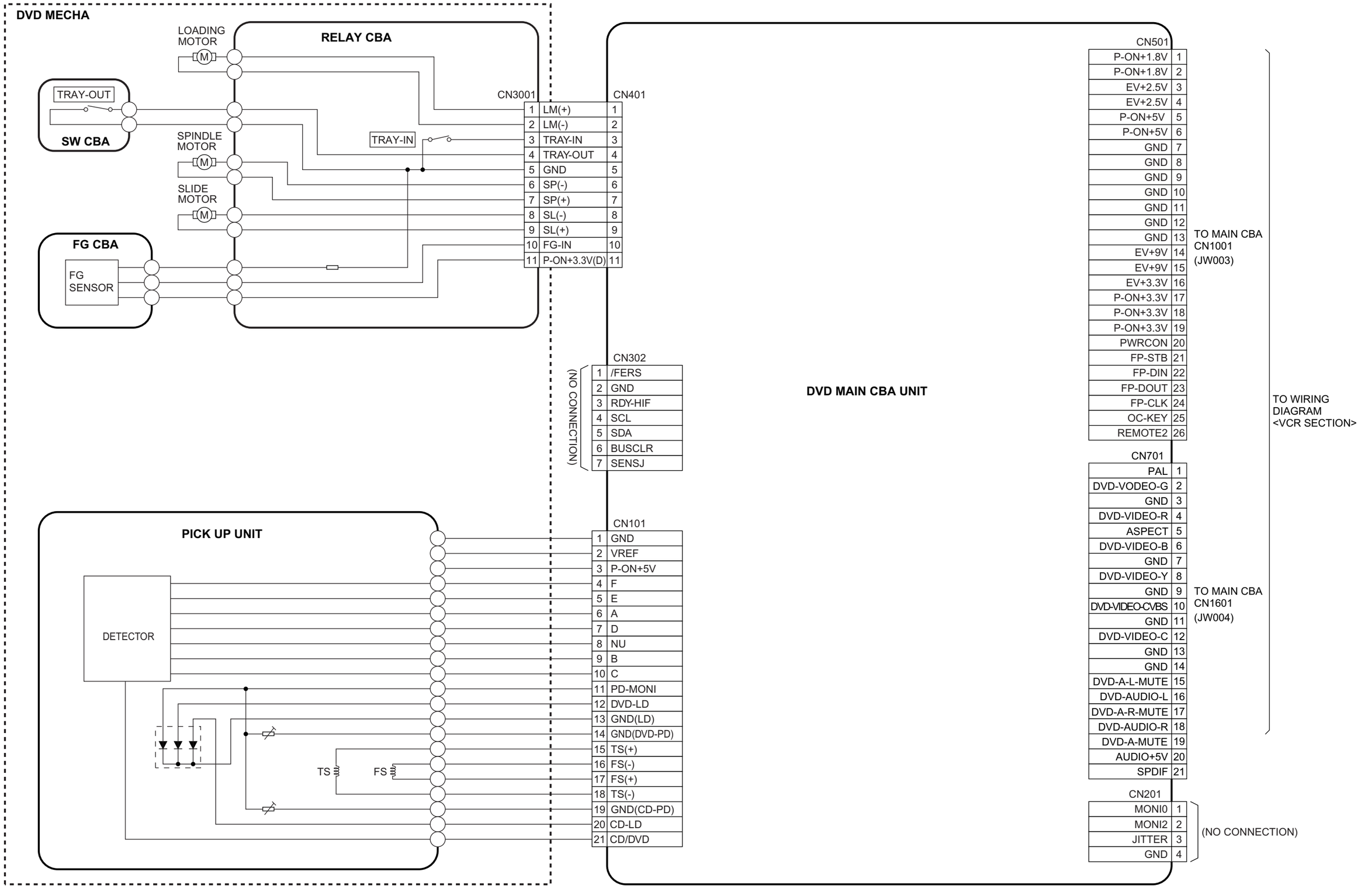


WIRING DIAGRAM < VCR SECTION >

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)



WIRING DIAGRAM< DVD SECTION>



SYSTEM CONTROL TIMING CHARTS

Mode SW : LD-SW

LD-SW Position detection A/D Input voltage Limit (Calculated voltage)	Symbol
3.76V~4.50V (4.12V)	EJ
4.51V~5.00V (5.00V)	CL
0.00V~0.25V (0.00V)	SB
1.06V~1.50V (1.21V)	TL
0.66V~1.05V (0.91V)	FB
1.99V~2.60V (2.17V)	SF
1.51V~1.98V (1.80V)	AU
3.20V~3.75V (3.40V)	AL
0.26V~0.65V (0.44V)	SS
4.51V~5.00V (5.00V)	GC
2.61V~3.19V (2.97V)	RS

Note:

Note :

EJ → RS: Loading FWD (LM-FWD “H”, LM-REV “L”)

RS → EJ: Loading REV (LM-FWD “L”, LM-REV “H”)

Stop (A) = Loading

Stop (B) = Unloading

Note :

Symbol	Loading Status
EJ	Eject
CL	Eject ~ REW Reel
SB	REW Reel ~ Stop(B)
TL	Stop(B) ~ Brake Cancel
FB	Brake Cancel
SF	~ Stop(A)
AU	Stop(A) ~ Play / REC
AL	Play / REC ~ Still / Slow
SS	Still / Slow ~ Capstan Reversal
GC	Capstan Reversal ~ RS (REW Search)
RS	RS (REW Search)

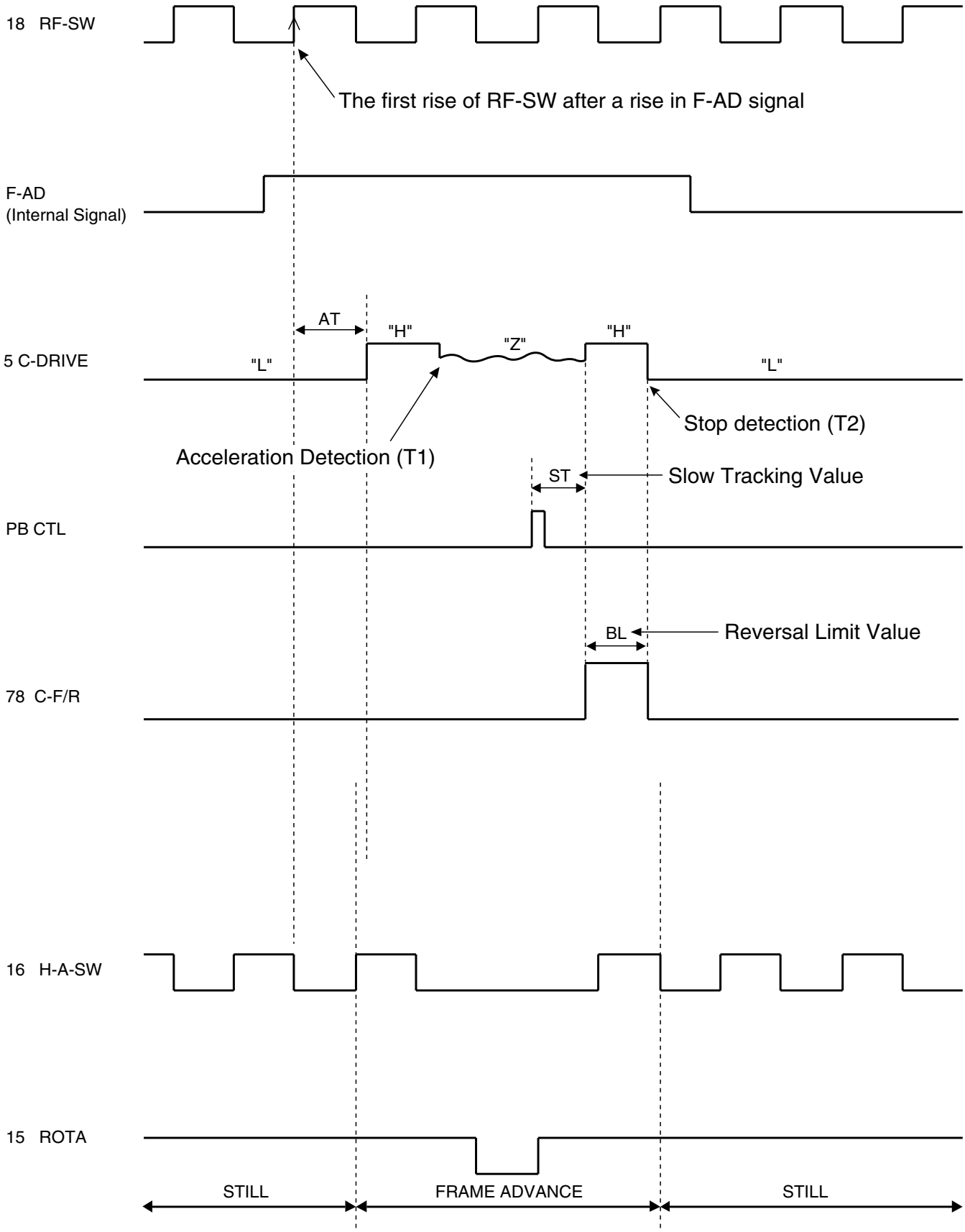

18 RF-SW
The first rise of RF-SW after a rise in F-AD signal
F-AD
(Internal Signal)
AT
"H"
"Z"
"H"
5 C-DRIVE
"L"
"L"
Stop detection (T2)
Acceleration Detection (T1)
ST
Slow Tracking Value
PB CTL
BL
Reversal Limit Value
78 C-F/R
16 H-A-SW
15 ROTA
STILL
FRAME ADVANCE
STILL

Fig. 1

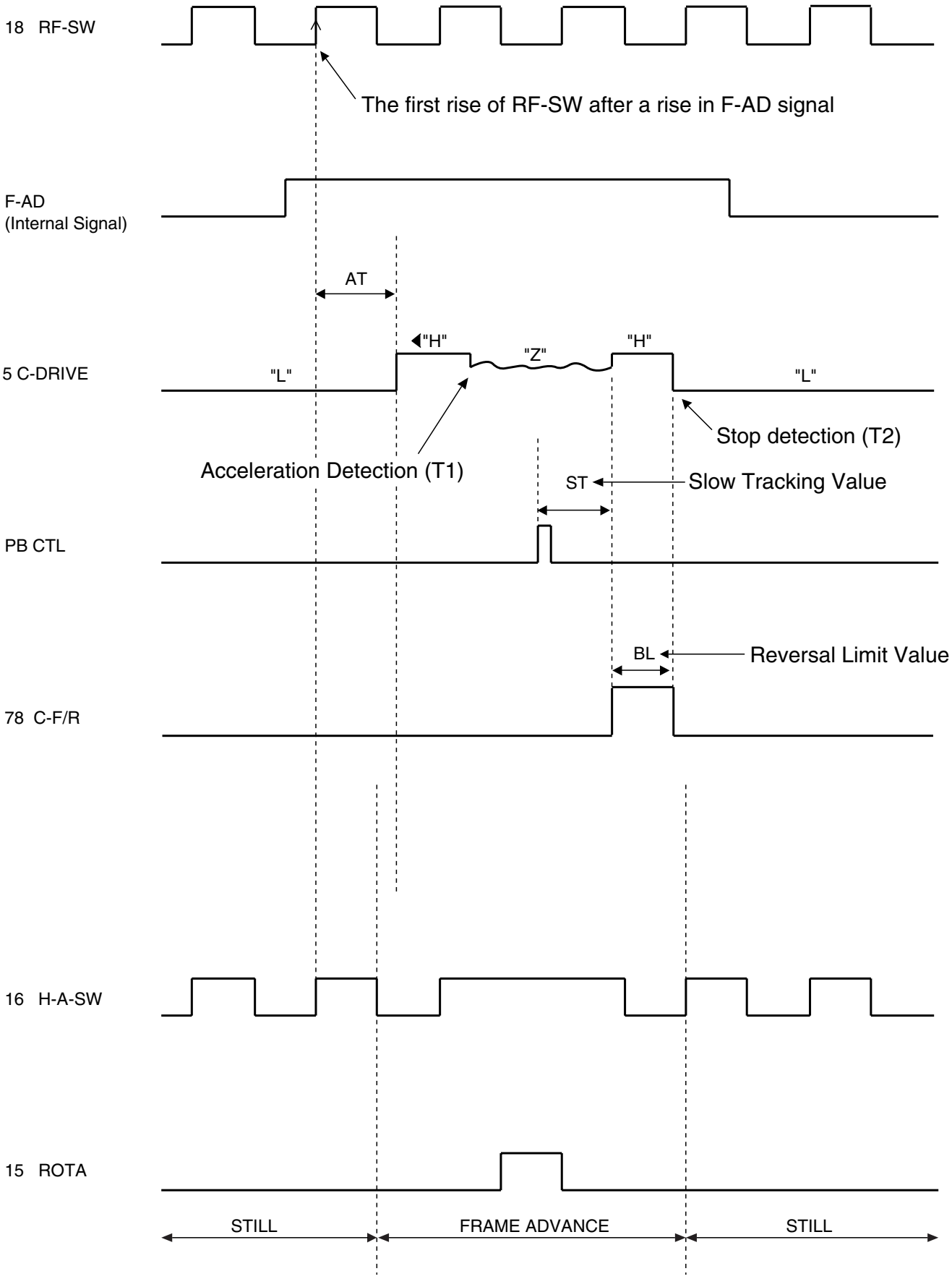

18 RF-SW
The first rise of RF-SW after a rise in F-AD signal
F-AD
(Internal Signal)
AT
"H"
"Z"
"H"
5 C-DRIVE
"L"
"L"
Stop detection (T2)
Acceleration Detection (T1)
ST
Slow Tracking Value
PB CTL
BL
Reversal Limit Value
78 C-F/R
16 H-A-SW
15 ROTA
STILL
FRAME ADVANCE
STILL

Fig. 2

1. EJECT (POWER OFF) -> CASSETTE IN (POWER ON) -> STOP(B) -> STOP(A) -> PLAY -> RS -> FS -> PLAY -> STILL -> PLAY -> STOP(A)

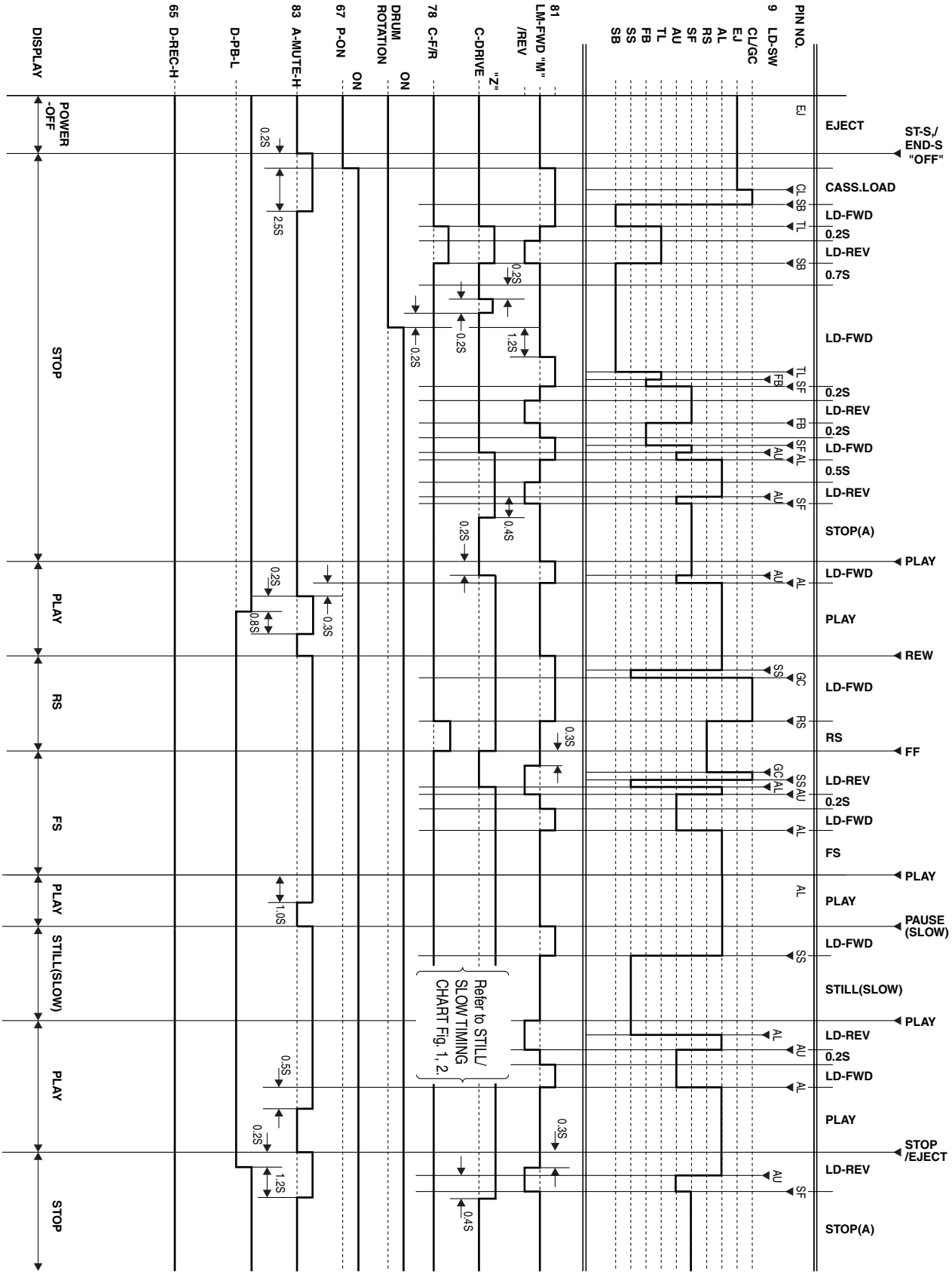


Fig. 3

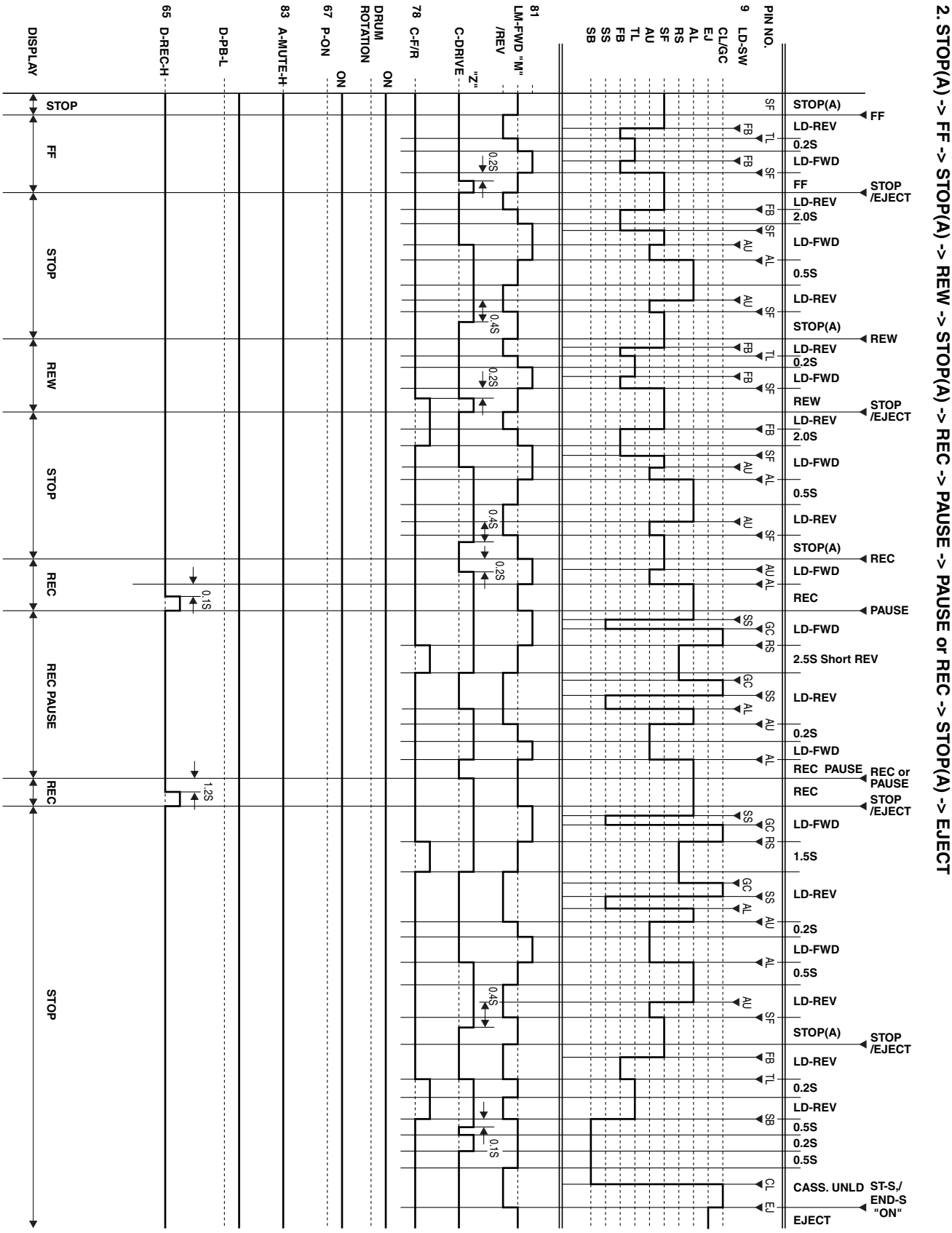

2. STOP(A) -> FF -> STOP(A) -> REW -> STOP(A) -> REC -> PAUSE -> PAUSE or REC -> STOP(A) -> EJECT
PIN NO.
9 LD-SW
CL/GC
EJ
AL
RS
SF
AU
TL
FB
SS
SB
81 LM-FWD "M" /REV
"Z" C-DRIVE
78 C-F/R
DRUM ROTATION
67 P-ON
83 A-MUTE-H
65 D-REC-H
D-PB-L
DISPLAY
STOP
FF
STOP
REW
STOP
REC
REC PAUSE
REC
STOP
0.2S
0.4S
0.1S
1.2S
STOP(A)
FF
LD-REV
0.2S
LD-FWD
FF
STOP /EJECT
LD-REV
2.0S
LD-FWD
0.5S
LD-REV
STOP(A)
REW
LD-REV
0.2S
LD-FWD
REW
STOP /EJECT
LD-REV
2.0S
LD-FWD
0.5S
LD-REV
STOP(A)
REC
LD-FWD
REC
PAUSE
LD-FWD
2.5S Short REV
LD-REV
0.2S
LD-FWD
REC PAUSE
REC or PAUSE
REC
STOP /EJECT
LD-FWD
1.5S
LD-REV
0.2S
LD-FWD
0.5S
LD-REV
STOP(A)
STOP /EJECT
LD-REV
0.2S
LD-REV
0.5S
0.2S
0.5S
CASS. UNLD
ST-S,/ END-S "ON"
EJECT

Fig. 4

IC PIN FUNCTION DESCRIPTIONS

[VCR Section]

IC501(SERVO / SYSTEM CONTROL IC)

"H" ≥ 4.5V, "L" ≤ 1.0V

Pin No.	IN/ OUT	Signal Name	Function	Active Level
1	IN	SC2-IN	Input Signal from Pin 8 of SCART2	L/Hi-z
2	IN	PG-DELAY	Video Head Switching Pulse Signal Adjusted Voltage	A/D
3	IN	POW-SAF	P-ON Power Detection Input Signal	A/D
4	IN	END-S	Tape End Position Detect Signal	A/D
5	IN	AFC	Automatic Frequency Control Signal	A/D
6	IN	V-ENV	Video Envelope Comparator Signal	A/D
7	IN	KEY-1	Key Scan Input Signal 1	A/D
8	IN	KEY-2	Key Scan Input Signal 2	A/D
9	IN	LD-SW	Deck Mode Position Detector Signal	A/D
10	OUT	ST-S	Tape Start Position Detector Signal	A/D
11	-	N.U.	Not Used	-
12	-	N.U.	Not Used	-
13	OUT	D-V-SYNC	Dummy V-sync Output	H/Hi-z
14	IN	REMOCON	Remote Control Sensor	L
15	OUT	C-ROTA	Color Phase Rotary Changeover SIgnal	H/L
16	OUT	H-A-SW	Video Head Amp Switching Pulse	H/L
17	IN	H-A-COMP	Head Amp Comparator Signal	H/L
18	OUT	RF-SW	Video Head Switching Pulse	H/L
19	OUT	Hi-Fi-H-SW	HiFi Audio Head Switching Pulse	H/L
20	IN	DAVN-L	VPS/PDC Data Receive = "L"	L
21	-	N.U.	Not Used	-
22	-	N.U.	Not Used	-
23	OUT	POWER LED	"POWER" LED Signal Output	H/L
24	OUT	CAS LED	"CASSETTE" LED Signal Output	H/L
25	OUT	TIMER LED	"TIMER" LED Signal Output	H/L
26	OUT	REC LED	"REC" LED Signal Output	H/L
27	-	N.U.	Not Used	-
28	OUT	RGB-THROUGH	SCART 2 RGB Through Control Signal	L/Hi-z
29	OUT	DVD LED	"DVD" LED Signal Output	H/L
30	OUT	VCR LED	"VCR" LED Signal Output	H/L
31	IN	REC-SAF-SW	Recoding Safety SW Detect (With Record tab="L"/ With out Record tab="H")	H/L
32	-	N.U.	Not Used	-
33	-	N.U.	Not Used	-
34	IN	RESET	System Reset Signal (Reset="L")	L
35	IN	XCIN	Sub Clock	-
36	OUT	XCOUT	Sub Clock	-
37	-	Vcc	Vcc	-
38	IN	XIN	Main Clock Input	-
39	OUT	XOUT	Main Clock Input	-
40	-	Vss	Vss(GND)	-
41	-	N.U.	Not Used	-
42	-	DVD-8PIN-IN	SCART 8Pin DVD Input Control Signal	H/L
43	IN	CLKSEL	Clock Select (GND)	L
44	IN	OSCIN	Clock Input for letter size	-
45	OUT	OSCOUT	Clock Output for letter size	-
46	-	NUB	Not Used	-
47	-	PG/LP	PG/LP	-
48	IN	FSC-IN [4.43MHz]	4.43MHz Clock Input	-
49	-	OSDVss	OSDVss	-
50	IN	OSD-V-IN	OSD Video Signal Input	-
51	-	N.U.	Not Used	-

Pin No.	IN/ OUT	Signal Name	Function	Active Level
52	OUT	OSD-V-OUT	OSD Video Signal Output	-
53	-	OSDVcc	OSDVcc	-
54	-	HLF	LPF Connected Terminal (Slicer)	-
55	-	N.U.	Not Used	-
56	-	N.U.	Not Used	-
57	-	N.U.	Not Used	-
58	-	N.U.	Not Used	-
59	OUT	8POUT-1	SCART 1 8Pin Output Control Signal	H/L
60	OUT	8POUT-2	SCART 2 8Pin Output Control Signal	H/L
61	IN	A-MODE	Hi-Fi Tape Detection Signal	L
62	-	N.U.	Not Used	-
63	-	N.U.	Not Used	-
64	-	N.U.	Not Used	-
65	OUT	D-REC-H	Delayed Record Signal	L
66	OUT	C-POWER-SW	Capstan Power Switching Pulse	L/Hi-z
67	IN	P-ON-H	Power On Signal at High	H
68	-	N.U.	Not Used	-
69	-	N.U.	Not Used	-
70	-	N.U.	Not Used	-
71	OUT	IIC-BUS-SCL	IIC BUS Control Clock	H/L
72	IN/ OUT	IIC-BUS-SDA	IIC BUS Control Data	H/L
73	-	N.U.	Not Used	-
74	OUT	OUTPUT-SELECT	Output Select	H/L
75	-	DVD-POWER-MONITOR	DVD Power Monitor Signal (P-off="H", P-on="L")	H/L
76	OUT	C-CONT	Capstan Motor Control Signal	PWM
77	OUT	D-CONT	Drum Motor Control Signal	PWM
78	OUT	C-F/R	Capstan Motor FWD/ REV Control Signal (FWD="L"/REV="H")	H/L
79	IN	S-REEL	Supply Reel Rotation Signal	PULSE
80	IN	T-REEL	Take Up Reel Rotation Signal	PULSE

Pin No.	IN/ OUT	Signal Name	Function	Active Level
81	OUT	LM-FWD/ REV	Loading Motor Control Signal	H/L/ Hi-z
82	OUT	DVD-POWER	DVD Power Control Signal	L
83	OUT	A-MUTE-H	Audio Mute Control Signal (Mute = "H")	H
84	OUT	FF/REW-L	CTL Amp Gain Switching Signal (FF/ REW="L")	L
85	-	N.U.	Not Used	-
86	IN	P-DOWN-L	Power Voltage Down Detector Signal	L
87	IN	C-FG	Capstan Motor Rotation Detection Pulse	PULSE
88	-	AMPVss	AMPVss (GND)	-
89	IN	D-FG	Drum Motor Rotation Detection Pulse	PULSE
90	IN	D-PG	Drum Motor Pulse Generator	PULSE
91	-	N.U.	Not Used	-
92	-	AMPVREFIN	V-Ref for CTL AMP	-
93	-	C	C Terminal	-
94	OUT	CTL (-)	Playback/Record Control Signal (-)	H/L
95	OUT	CTL (+)	Playback/Record Control Signal (+)	H/L
96	-	AMPC	CTL AMP Connected Terminal	-
97	-	CTLAMP out	To Monitor for CTL AMP Output	PULSE
98	-	AMPVcc	AMPVcc	-
99	-	AVcc	A/D Converter Power Input/ Standard Voltage Input	-
100	IN	AGC	IF AGC Control Signal	H/L/ Hi-z

Notes:

Abbreviation for Active Level:

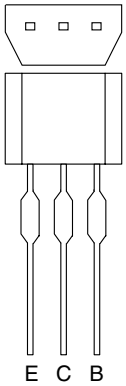
PWM -----Pulse Wide Modulation

A/D--------Analog - Digital Converter

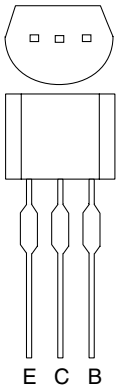
IC2001 [PT6315-S(TP)]

Pin No.	In/Out	Signal Name	Name Function
1	In	CLK	Clock Input
2	In	STB	Serial Interface Strobe
3	In	K1	Key Data 1 Input
4	In	K2	Key Data 2 Input
5	-	VSS	GND
6	-	VDD	Power Supply
7	Out	a / KEY-1	Segment Output / Key Souce-1
8	Out	b / KEY-2	Segment Output / Key Souce-2
9	Out	c	Segment Output
10	Out	d / KEY-4	Segment Output/ Key Souce-4
11	Out	e	Segment Output
12	In	f	
13	In	g	
14	Out	h	
15	-	VEE	Pull Down Level
16	Out	i	Segment Output
17	Out	7G	Grid Output
18		6G	
19		5G	
20		4G	
21		3G	
22		2G	
23		1G	
24	-	VDD	Power Supply
25	-	VSS	GND
26	In	OSC	Oscillator Input
27	Out	DOUT	Serial Data Output
28	In	DIN	Serial Data Input

LEAD IDENTIFICATIONS

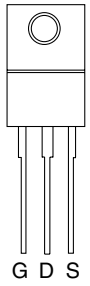


BN1F4M-T
BA1F4M-T
KTA1266(GR)
KTC3199(Y,GR,BL)
2SC2785(J,H,F,K)
KRC103M
KRA103M
BN1L3Z(P)
KRA110M
KTA1273(Y)
KTA1281(Y)
KRA104M
BN1L4M-T
KRC110M-AT
BA1L3Z-T



2SC1815-BL(TPE2)
2SC1815-Y(TPE2)
2SC1815-GR(TPE2)
2SC2120-Y(TPE2)
KTC3203(Y)
KTC3205 (Y)
2SA966(Y)
2SC2001(K,L)
2SA1020(Y)
2SB892(S)
2SC3266-Y(TPE2)
2SA1015-GR(TPE2)

FS2KM-18A
KIA78R33PI
PQ3RD13(1A)



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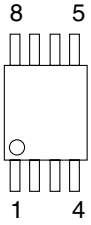

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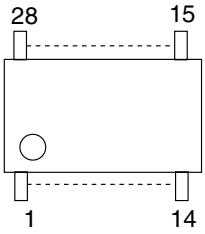

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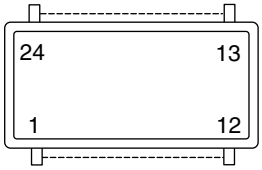

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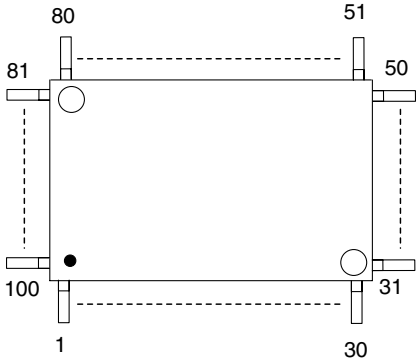

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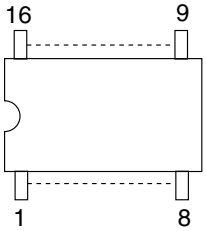

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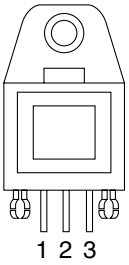

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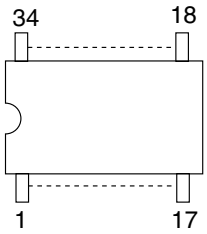

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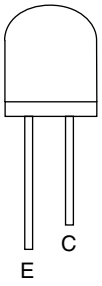

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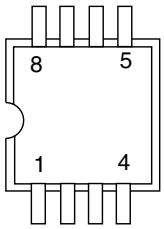
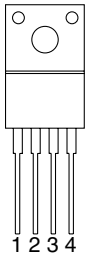


PQ018EF01SZ



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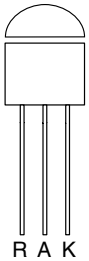

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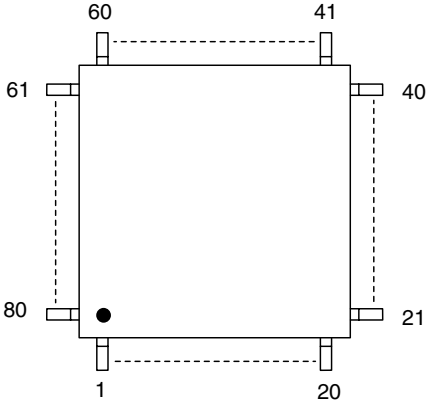

MSP3407G-QG-B8-V3
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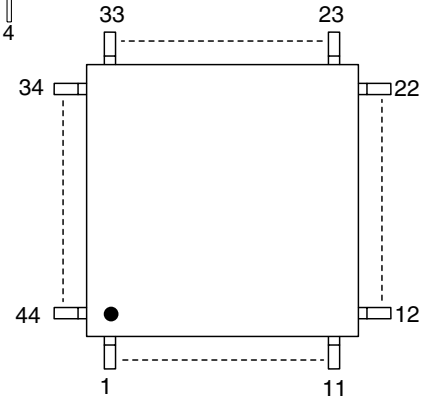
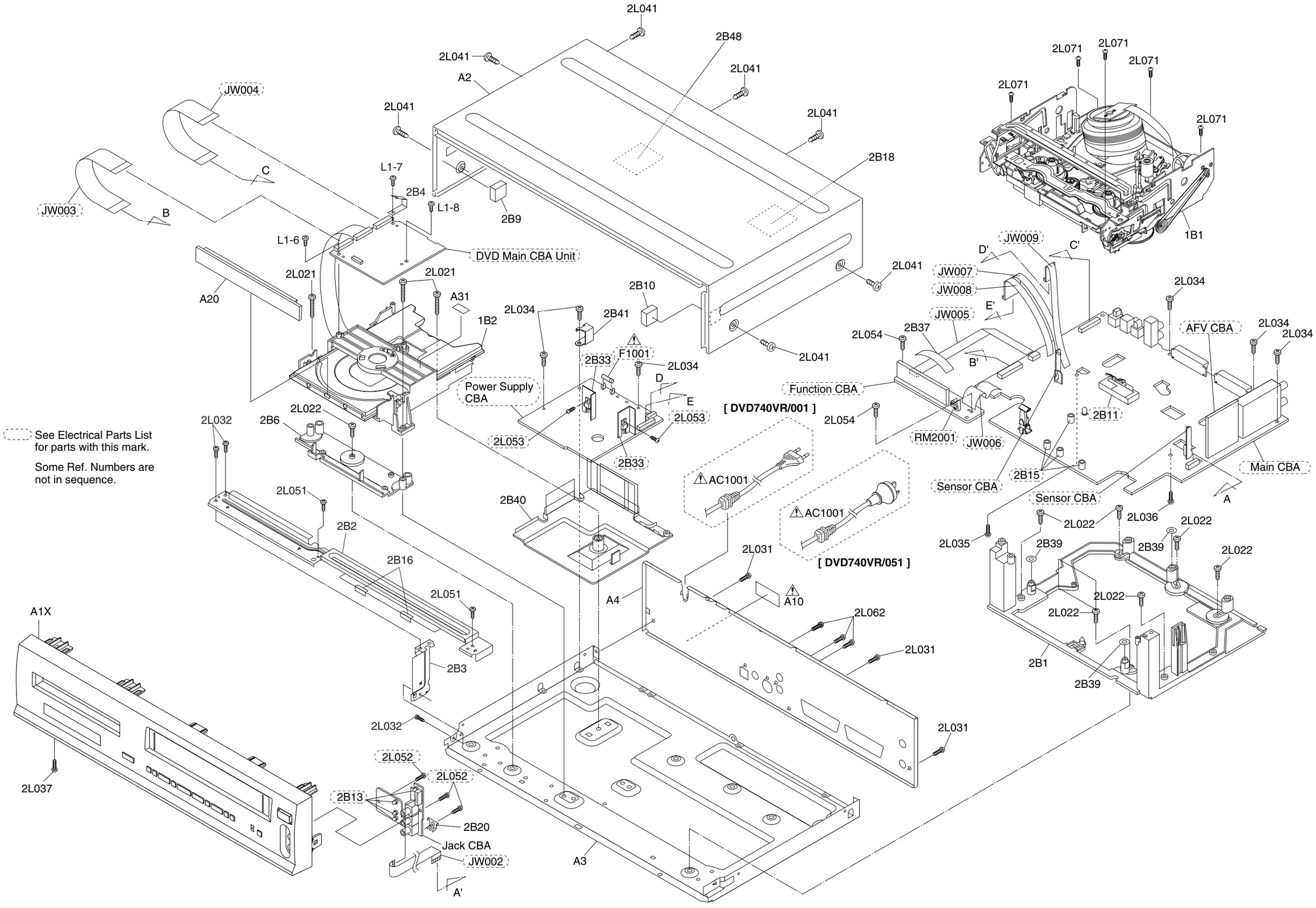


Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
S: Source
G: Gate
D: Drain

Cabinet

EXPLODED VIEWS

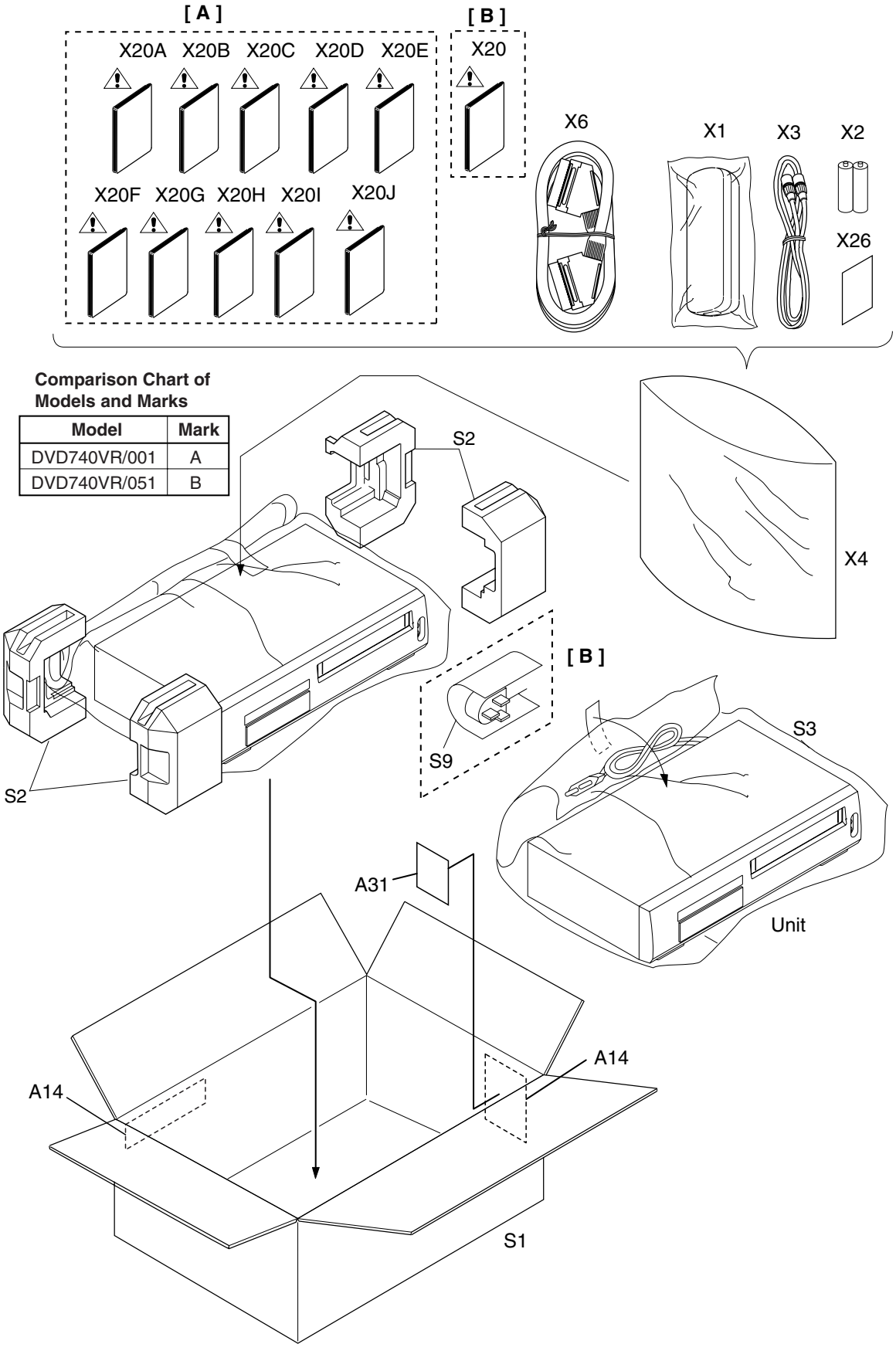


See Electrical Parts List for parts with this mark.

Some Ref. Numbers are not in sequence.

Packing

Some Ref. Numbers are not in sequence.



Comparison Chart of Models and Marks

Model	Mark
DVD740VR/001	A
DVD740VR/051	B

DECK MECHANISM SECTION

DIGITAL VIDEO DISC PLAYER & VIDEO CASSETTE RECORDER

Sec. 2: Deck Mechanism Section

- **Standard Maintenance**
- **Mechanism Alignment Procedures**
- **Disassembly / Assembly of Mechanism**
- **Deck Exploded Views**
- **Deck Parts List**

TABLE OF CONTENTS

STANDARD MAINTENANCE 2-1-1
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MECHANICAL ALIGNMENT PROCEDURES 2-3-1
DISASSEMBLY / ASSEMBLY PROCEDURES OF DECK MECHANISM 2-4-1
ALIGNMENT PROCEDURES OF MECHANISM 2-4-9
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STANDARD MAINTENANCE

Service Schedule of Components

H: Hours ❍: Check ●: Change

Deck		Periodic Service Schedule			
Ref.No.	**Part Name**	**1,000 H**	**2,000 H**	**3,000 H**	**4,000 H**
B2	Cylinder Assembly	❍	●	❍	●
B3	Loading Motor Assembly			●	
B8	Pulley Assembly		●		●
B27	Tension Lever Sub Assembly		●		●
B31	AC Head Assembly			●	
B573,B574	Reel S, Reel T			●	
B37	Capstan Motor		●		●
B52	Cap Belt		●		●
*B73	FE Head			●	
B133	Idler Assembly		●		●
B410	Pinch Arm (A) Assembly		●		●
B414	M Brake S Assembly		●		●
B416	M Brake T Assembly		●		●
B525	LDG Belt		●		●

Notes:

1. Clean all parts for the tape transport (Upper Drum with Video Head / Pinch Roller / Audio Control Head / Full Erase Head) using 90% Isopropyl Alcohol.
2. After cleaning the parts, do all DECK ADJUSTMENTS.
3. For the reference numbers listed above, refer to Deck Exploded Views.

* B73 ------ Recording Model only

Cleaning

Cleaning of Video Head

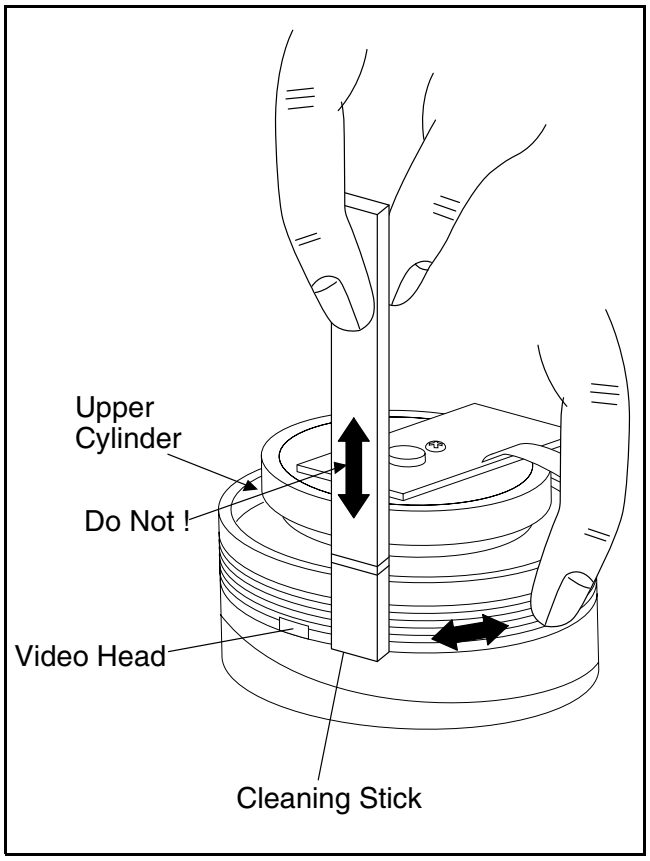
Clean the head with a head cleaning stick or chamois cloth.

Procedure

1. Remove the top cabinet.
2. Put on a glove (thin type) to avoid touching the upper and lower drum with your bare hand.
3. Put a few drops of 90% Isopropyl alcohol on the head cleaning stick or on the chamois cloth and, by slightly pressing it against the head tip, turn the upper drum to the right and to the left.

Notes:

1. The video head surface is made of very hard material, but since it is very thin, avoid cleaning it vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit.
3. Do not reuse a stained head cleaning stick or a stained chamois cloth.



Cleaning of Audio Control Head

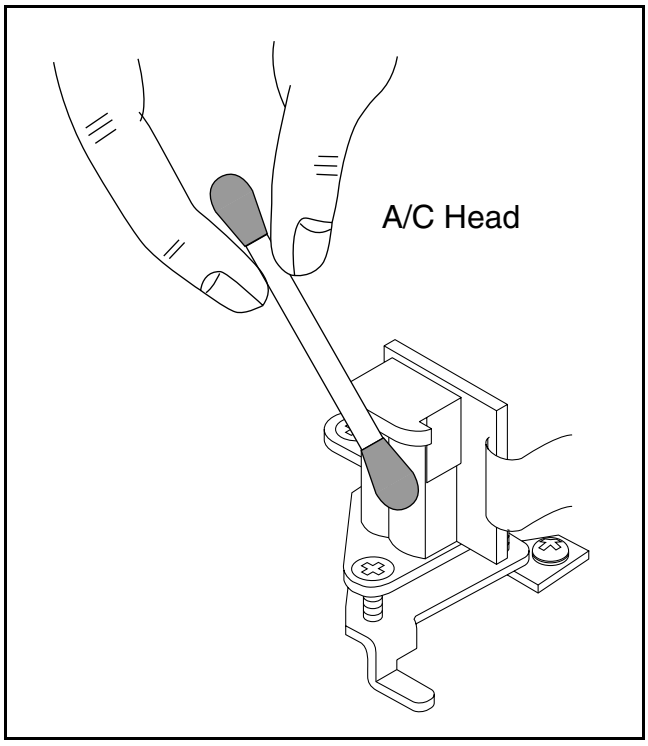
Clean the head with a cotton swab.

Procedure

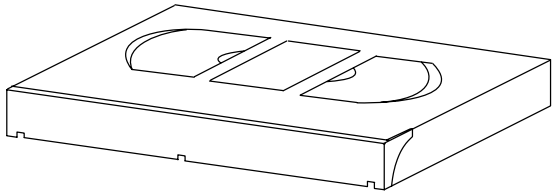
1. Remove the top cabinet.
2. Dip the cotton swab in 90% isopropyl alcohol and clean the audio control head. Be careful not to damage the upper drum and other tape running parts.

Notes:

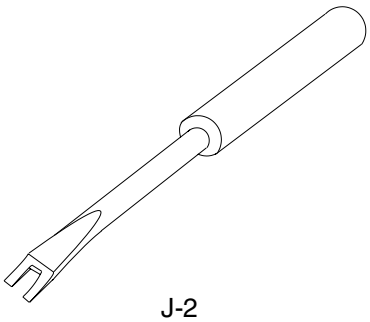
1. Avoid cleaning the audio control head vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit or damage may occur.



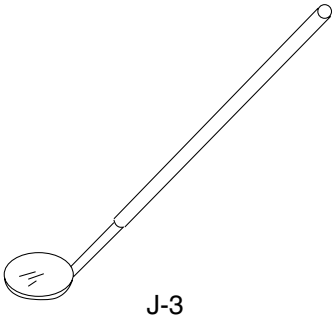
SERVICE FIXTURE AND TOOLS



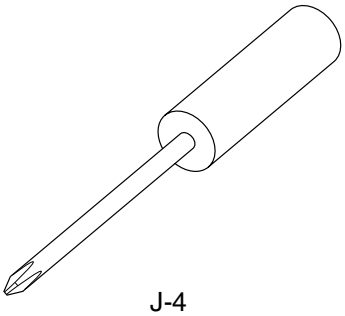
J-1-1, J-1-2



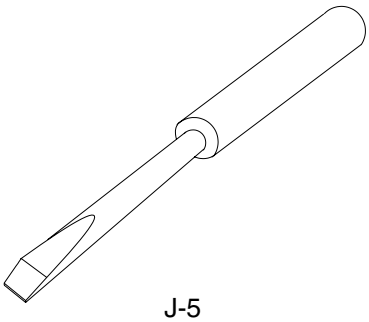
J-2



J-3



J-4



J-5

Ref. No.	Name	Part No.	Adjustment
J-1-1	Alignment Tape	FL6A	Electrical Adjustments
J-1-2	Alignment Tape	FL6N8 (2 Head model) FL6NS8 (4 Head model)	Azimuth and X Value Adjustment of Audio Control Head / Adjustment of Envelope Waveform
J-2	Guide Roller Adj.Screwdriver	Available Locally	Guide Roller
J-3	Mirror	Available Locally	Tape Transportation Check
J-4	Azimuth Adj.Screwdriver +	Available Locally	A/C Head Height
J-5	X Value Adj.Screwdriver -	Available Locally	X Value

MECHANICAL ALIGNMENT PROCEDURES

Explanation of alignment for the tape to correctly run starts on the next page. Refer to the information below on this page if a tape gets stuck, for example, in the mechanism due to some electrical trouble of the unit.

Service Information

A. Method for Manual Tape Loading/Unloading

To load a cassette tape manually:

1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Insert a cassette tape. Though the tape will not be automatically loaded, make sure that the cassette tape is all the way in at the inlet of the Cassette Holder. To confirm this, lightly push the cassette tape further in and see if the tape comes back out, by a spring motion, just as much as you have pushed in.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 for a minute or two to complete this task.

To unload a cassette tape manually:

1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Make sure that the Moving guide preparations are in the Eject Position.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 until the Moving guide preparations come to the Eject Position. Stop turning when the preparations begin clicking or can not be moved further. However, the tape will be left wound around the cylinder.
5. Turn the LDG Belt in the appropriate direction continuously, and the cassette tape will be ejected. Allow a minute or two to complete this task.

B. Method to place the Cassette Holder in the tape-loaded position without a cassette tape

1. Disconnect the AC Plug.
2. Remove the Top Case and Front Assembly.
3. Turn the LDG Belt in the appropriate direction shown in Fig. M1. Release the locking tabs shown in Fig. M1 and continue turning the LDG Belt until the Cassette Holder comes to the tape-loaded position. Allow a minute or two to complete this task.

Top View

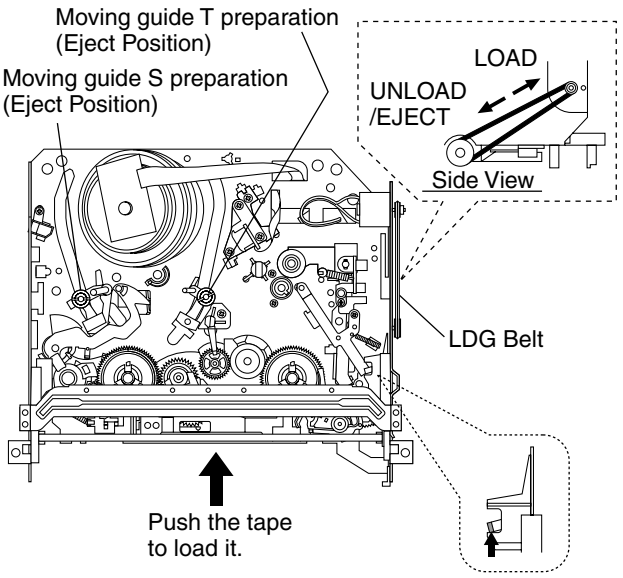


Fig. M1

Bottom View

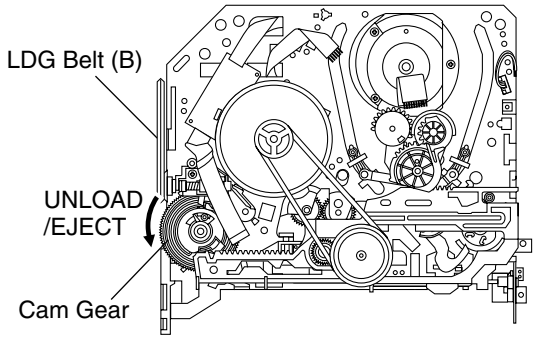


Fig. M2

1.Tape Interchangeability Alignment

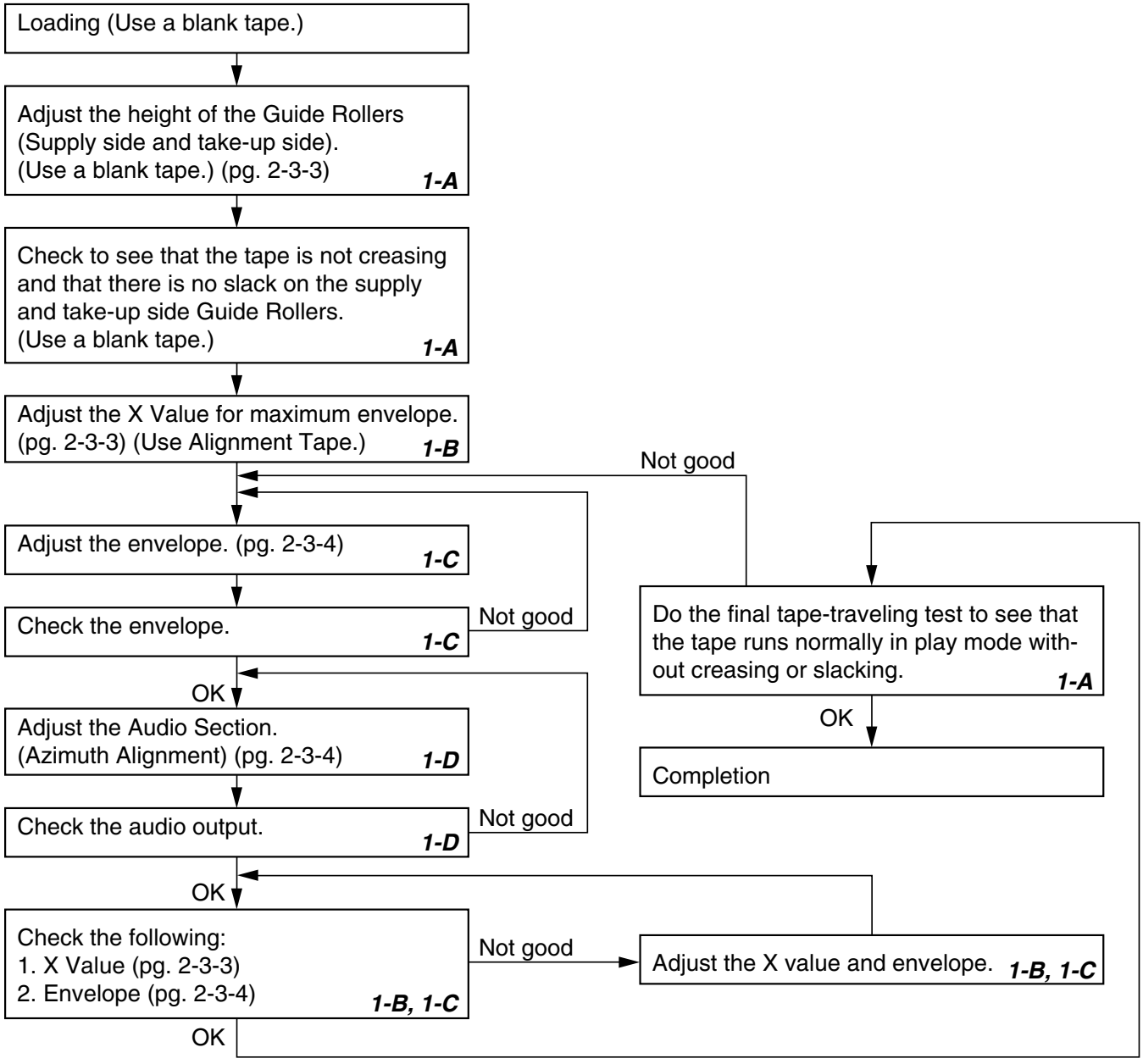
Note:
To do these alignment procedures, make sure that the Tracking Control Circuit is set to the center position every time a tape is loaded or unloaded. (Refer to page 2-3-4, procedure 1-C, step 2.)

Equipment required:

Dual Trace Oscilloscope
VHS Alignment Tape (FL6NS8)
Guide Roller Adj. Screwdriver
X-Value Adj. Screwdriver

Note: Before starting this Mechanical Alignment, do all Electrical Adjustment procedures.

Flowchart of Alignment for tape traveling


Loading (Use a blank tape.)
Adjust the height of the Guide Rollers (Supply side and take-up side). (Use a blank tape.) (pg. 2-3-3) 1-A
Check to see that the tape is not creasing and that there is no slack on the supply and take-up side Guide Rollers. (Use a blank tape.) 1-A
Adjust the X Value for maximum envelope. (pg. 2-3-3) (Use Alignment Tape.) 1-B
Not good
Adjust the envelope. (pg. 2-3-4) 1-C
Check the envelope. 1-C
Not good
OK
Adjust the Audio Section. (Azimuth Alignment) (pg. 2-3-4) 1-D
Check the audio output. 1-D
Not good
OK
Check the following:
1. X Value (pg. 2-3-3)
2. Envelope (pg. 2-3-4) 1-B, 1-C
Not good
Adjust the X value and envelope. 1-B, 1-C
OK
Do the final tape-traveling test to see that the tape runs normally in play mode without creasing or slacking. 1-A
OK
Completion

1-A. Preliminary/Final Checking and Alignment of Tape Path

Purpose:

To make sure that the tape path is well stabilized.

Symptom of Misalignment:

If the tape path is unstable, the tape will be damaged.

Note: Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.

1. Playback a blank cassette tape and check to see that the tape runs without creasing at Guide Rollers [2] and [3], and at points A and B on the lead surface. (Refer to Fig M3 and M4.)
2. If creasing is apparent, align the height of the guide rollers by turning the top of Guide Rollers [2] and [3] with a Guide Roller Adj. Screwdriver. (Refer to Fig. M3 and M5.)

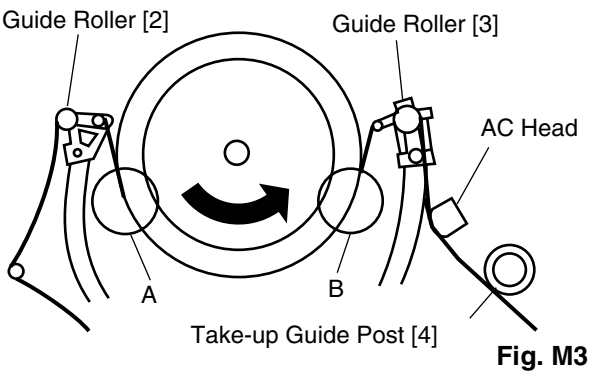


Fig. M3

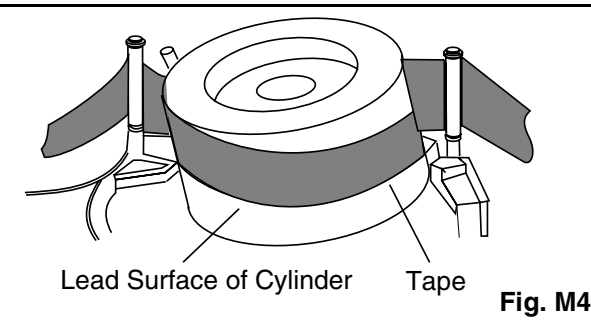


Fig. M4

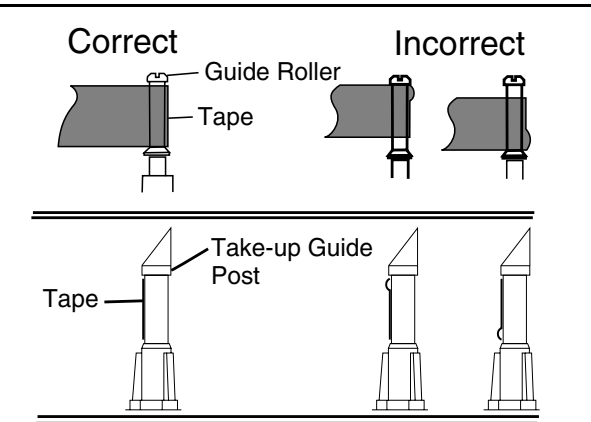


Fig. M5

3. Check to see that the tape runs without creasing at Take-up Guide Post [4] or without snaking between Guide Roller [3] and AC Head. (Fig. M3 and M5)
4. If creasing or snaking is apparent, adjust the Tilt Adj. Screw of the AC Head. (Fig. M6)

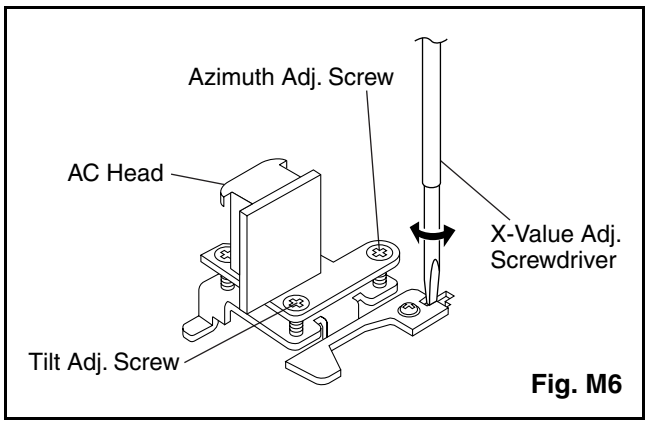


Fig. M6

1-B. X Value Alignment

Purpose:

To align the Horizontal Position of the Audio/Control/Erase Head.

Symptom of Misalignment:

If the Horizontal Position of the Audio/Control/Erase Head is not properly aligned, maximum envelope cannot be obtained at the Neutral position of the Tracking Control Circuit.

1. Connect the oscilloscope to TP301 (C-PB) and TP501 (CTL) on the Main CBA. Use TP502 (RF-SW) as a trigger.
2. Playback the Gray Scale of the Alignment Tape (FL6NS8) and confirm that the PB FM signal is present.
3. Set the Tracking Control Circuit to the center position by pressing CH UP button then " PLAY " button on the unit. (Refer to note on bottom of page 2-3-4.)
4. Use the X-Value Adj. Screwdriver so that the PB FM signal at TP301 (C-PB) is maximum. (Fig. M6)
5. Press CH UP button on the unit until the CTL waveform has shifted by approx. +2msec. Make sure that the envelope is simply attenuated (shrinks in height) during this process so that you will know the envelope has been at its peak.

6. Press CH DOWN button on the unit until the CTL waveform has shifted from its original position (not the position achieved in step 5, but the position of CTL waveform in step 4) by approximately -2msec. Make sure that the envelope is simply attenuated (shrinks in height) once CTL waveform passes its original position and is further brought in the minus direction.
7. Set the Tracking Control Circuit to the center position by pressing CH UP button and then " PLAY " button.

1-C. Checking/Adjustment of Envelope Waveform

Purpose:

To achieve a satisfactory picture and precise tracking.

Symptom of Misalignment:

If the envelope output is poor, noise will appear in the picture. The tracking will then lose precision and the playback picture will be distorted by any slight variation of the Tracking Control Circuit.

1. Connect the oscilloscope to TP301 (C-PB) on the Main CBA. Use TP502 (RF-SW) as a trigger.
2. Playback the Gray Scale on the Alignment Tape (FL6NS8). Set the Tracking Control Circuit to the center position by pressing CH UP button and then " PLAY " button on the unit. Adjust the height of Guide Rollers [2] and [3] (Fig. M3, Page 2-3-3) watching the oscilloscope display so that the envelope becomes as flat as possible. To do this adjustment, turn the top of the Guide Roller with the Guide Roller Adj. Screwdriver.
3. If the envelope is as shown in Fig. M7, adjust the height of Guide Roller [2] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.
4. If the envelope is as shown in Fig. M8, adjust the height of Guide Roller [3] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.
5. When Guide Rollers [2] and [3] (Refer to Fig.M3) are aligned properly, there is no envelope drop either at the beginning or end of track as shown in Fig. M9.

Note: Upon completion of the adjustment of Guide Rollers [2] and [3] (Refer to Fig. M3), check the X Value by pushing the CH UP or DOWN buttons alternately, to check the symmetry of the envelope. Check the number of pushes to ensure center position. The number of pushes CH UP button to achieve 1/2 level of envelope should match the number of pushes CH DOWN button from center. If required, redo the "X Value Alignment."

1-D. Azimuth Alignment of Audio/Control/ Erase Head

Purpose:

To correct the Azimuth alignment so that the Audio/ Control/Erase Head meets tape tracks properly.

Symptom of Misalignment:

If the position of the Audio/Control/Erase Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.
2. Playback the alignment tape (FL6NS8) and confirm that the audio signal output level is 6kHz.
3. Adjust Azimuth Adj. Screw so that the output level on the AC Voltmeter or the waveform on the oscilloscope is at maximum. (Fig. M6)

Dropping envelope level at the beginning of track.

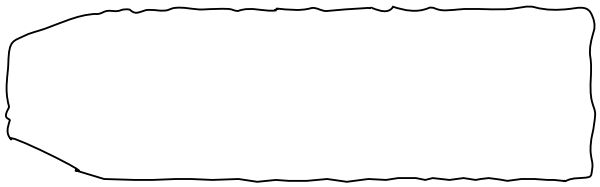


Fig. M7

Dropping envelope level at the end of track.

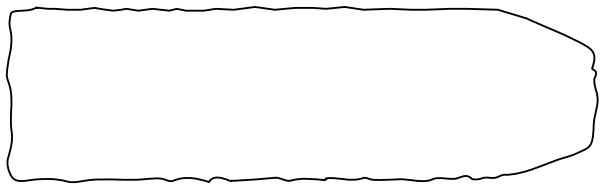


Fig. M8

Envelope is adjusted properly. (No envelope drop)

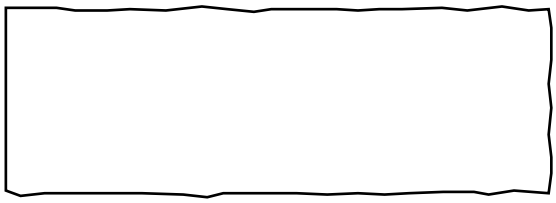


Fig. M9

DISASSEMBLY/ASSEMBLY PROCEDURES OF DECK MECHANISM

Before following the procedures described below, be sure to remove the deck assembly from the cabinet. (Refer to CABINET DISASSEMBLY INSTRUCTIONS on page 1-7-1.)
All the following procedures, including those for adjustment and replacement of parts, should be done in Eject mode; see the positions of [45] and [46] in Fig.DM1 on page 2-4-3. When reassembling, follow the steps in reverse order.

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[1]	[1]	Guide Holder A	T	DM3	2(S-1)	
[2]	[1]	Cassette Holder Assembly	T	DM4		
[3]	[2]	Slider L	T	DM5	(S-2)	
[4]	[2]	Slider R	T	DM5	(S-3)	
[5]	[4]	Lock Lever	T	DM5	(S-4),*(P-1)	
[6]	[2]	C Plate	T	DM5		
[7]	[7]	Cylinder Assembly	T	DM1,DM6	Desolder, 3(S-5)	
[8]	[8]	Loading Motor Assembly	T	DM1,DM7	Desolder, LDG Belt, 2(S-6)	
[9]	[9]	AC Head Assembly	T	DM1,DM7	(S-7)	
[10]	[2]	Tape Guide Assembly	T	DM1,DM8	*(P-2)	
[11]	[10]	Door Opener B	T	DM1,DM8	*(L-1),*(L-2)	
[12]	[11]	Pinch Arm (B)	T	DM1,DM8	*(P-3)	
[13]	[12]	Pinch Arm (A) Assembly	T	DM1,DM8		
[14]	[14]	FE Head	T	DM1,DM9	(S-9)	
[15]	[15]	Prism	T	DM1,DM9	(S-10)	
[16]	[2]	Slider Shaft	T	DM10	(S-11),*(L-3)	
[17]	[16]	C Drive Lever L	T	DM10		
[18]	[16]	C Drive Lever R	T	DM10		
[19]	[7],[10]	Capstan Motor	B	DM2,DM11	3(S-12), Cap Belt	
[20]	[20]	Clutch Assembly(HI)	B	DM2,DM12	(C-1)	
[21]	[20]	Center Gear	B	DM12		
[22]	[22]	Cam Holder F	B	DM2,DM13	(C-2)	
[23]	[22]	Cam Gear (B)	B	DM2,DM13	(C-3),*(P-4)	
[24]	[24]	Mode Gear	B	DM2,DM14	(C-4)	
[25]	[20],[23], [24]	Mode Lever(HI)	B	DM2,DM14	(C-5), *(L-4)	
[26]	[22]	Worm Holder	B	DM2,DM14	(S-15)	
[27]	[26]	Pulley Assembly	B	DM2,DM14		
[28]	[22],[25]	Cam Gear (A)	B	DM2,DM14		(+)Refer to Alignment Sec.Pg.2-4-10
[29]	[20]	TR Gear C	B	DM2,DM14	(C-6)	
[30]	[29]	TR Gear Spring	B	DM14		
[31]	[30]	TR Gear A/B	B	DM1,DM14		
[32]	[31]	FF Arm(HI)	B	DM1,DM14		
[33]	[21],[25]	Idler Assembly(HI)	B	DM1,DM15	*(L-5)	
[34]	[25]	BT Arm	B	DM2,DM15	*(P-5)	

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[35]	[25]	Loading Arm S(B) Assembly	B	DM2,DM15		(+)Refer to Alignment Sec.Pg.2-4-9
[36]	[35]	Loading Arm T(B) Assembly	B	DM2,DM15		(+)Refer to Alignment Sec.Pg.2-4-9
[37]	[2],[25]	M Brake T(HI) Assembly	T	DM1,DM16	*(P-6)	
[38]	[2],[25]	M Brake S(HI) Assembly	T	DM1,DM16	*(P-7)	
[39]	[38]	Tension Lever Sub Assembly	T	DM1,DM16		
[40]	[39]	T Lever Holder	T	DM1,DM16	*(L-6)	
[41]	[2]	M Gear(HYT)	T	DM1,DM16	(C-7)	
[42]	[2],[15]	Sensor Gear	T	DM1,DM16	(C-8)	
[43]	[37],[41]	Reel T	T	DM1,DM16		
[44]	[39]	Reel S	T	DM1,DM16		
[45]	[35],[38]	Moving Guide S Preparation	T	DM1,DM17		
[46]	[36]	Moving Guide T Preparation	T	DM1,DM17		
[47]	[19]	TG Post Assembly	T	DM1,DM17	*(L-7)	
[48]	[18],[28]	Rack Assembly	R	DM18		(+)Refer to Alignment Sec.Pg.2-4-10
[49]	[48]	F Door Opener	R	DM18		
[50]	[46]	Cleaner Lever Assembly	T	DM1,DM6	*(L-8)	
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)	↓ (6)	↓ (7)

(1): Follow steps in sequence. When reassembling, follow the steps in reverse order.
These numbers are also used as identification (location) No. of parts in the figures.

(2): Indicates the part to start disassembling with in order to disassemble the part in column (1).

(3): Name of the part

(4): Location of the part: T=Top B=Bottom R=Right L=Left

(5): Figure Number

(6): Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P=Spring, W=Washer, C=Cut Washer, S=Screw, *=Unhook, Unlock, Release, Unplug, or Desolder
e.g., 2(L-2) = two Locking Tabs (L-2).

(7): Adjustment Information for Installation
(+):Refer to Deck Exploded Views for lubrication.

Top View

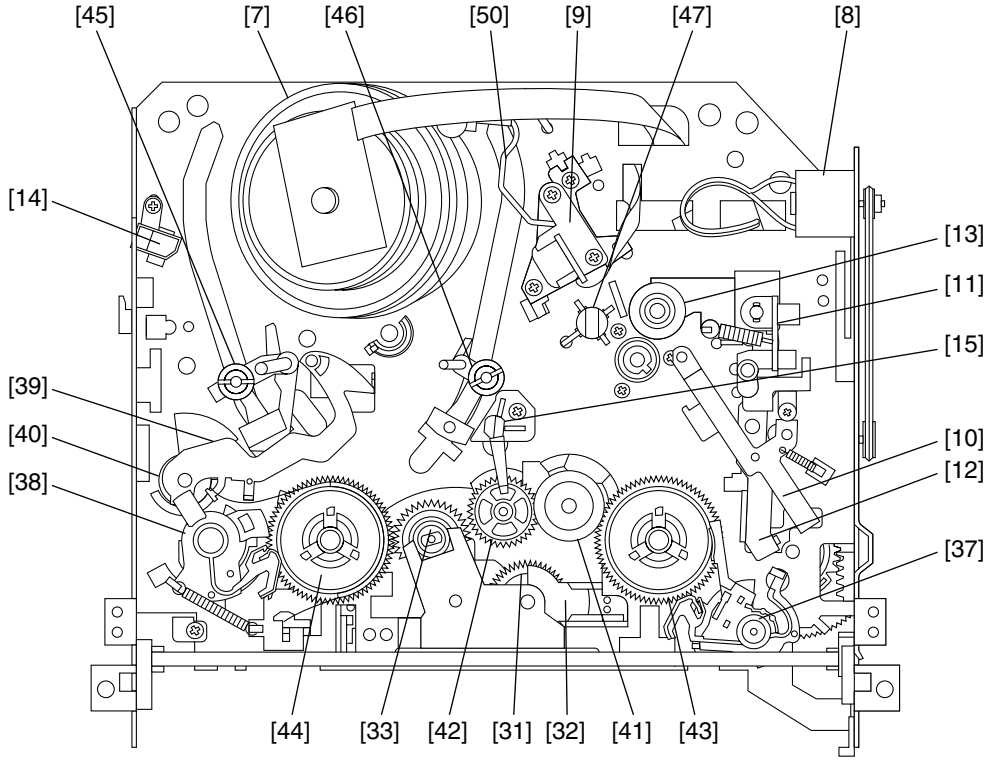


Fig. DM1

Bottom View

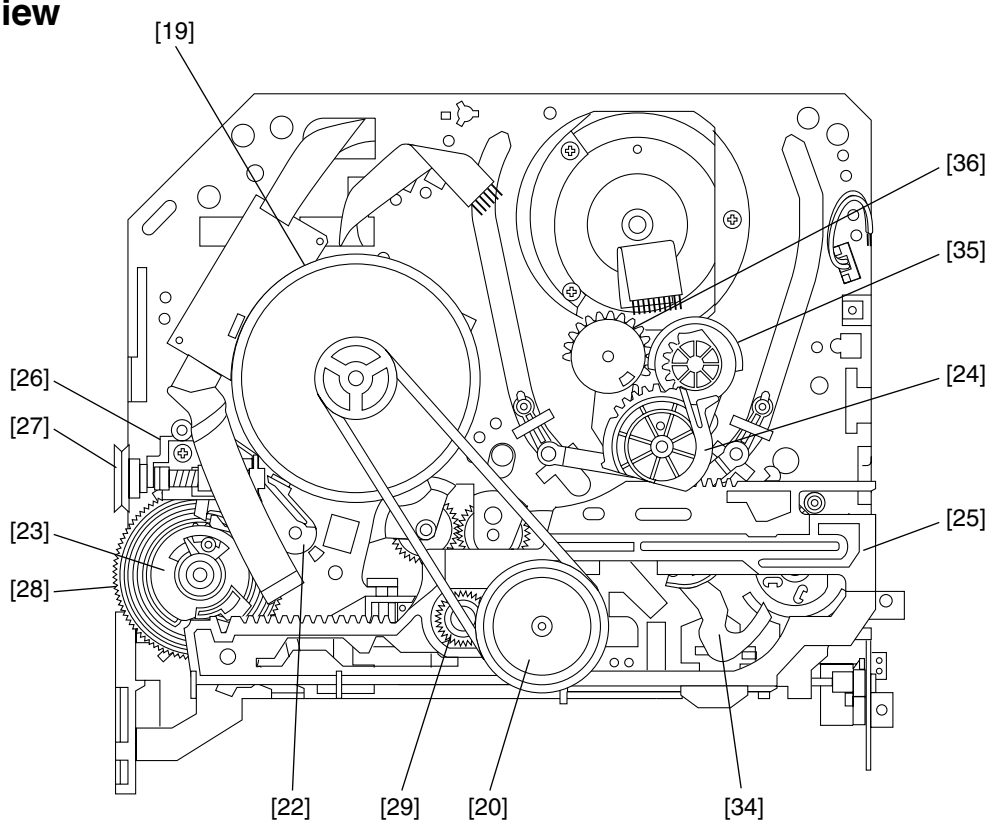


Fig. DM2

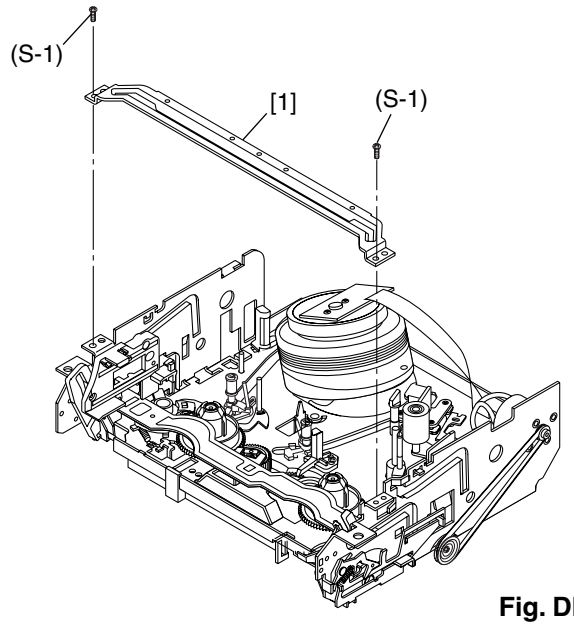


Fig. DM3

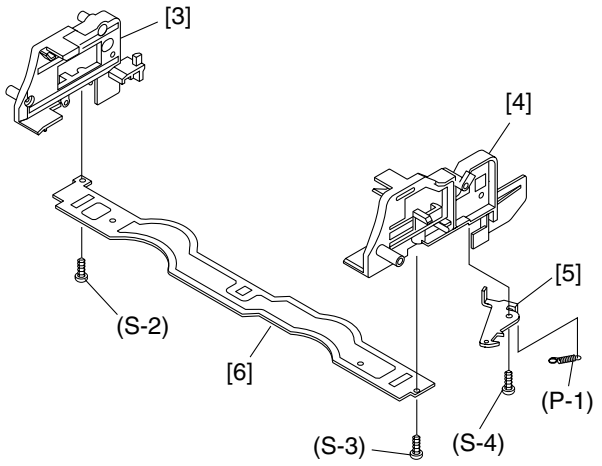
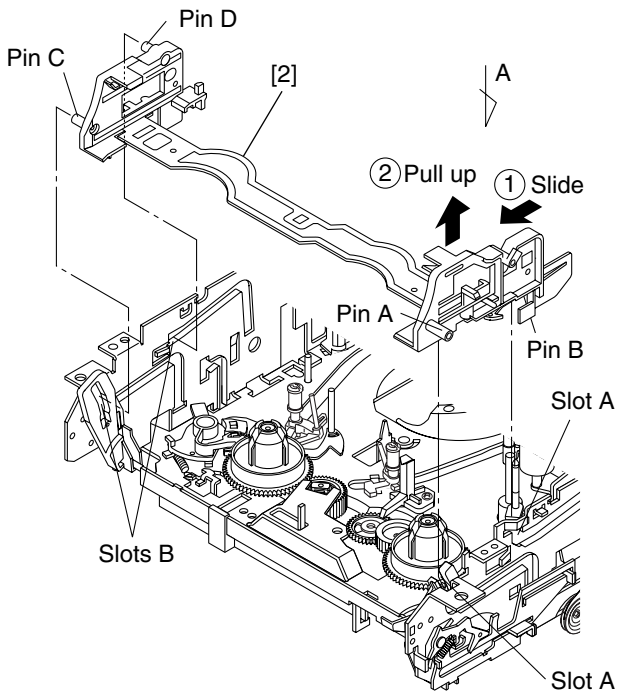


Fig. DM5



First, while pushing the locking tab as shown in the right, slide and pull up the right side on [2] to release Pin A and Pin B from the slots A.
Then, remove Pin C and Pin D on [2] from the slots B as shown.

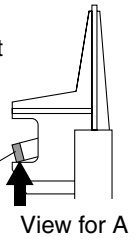
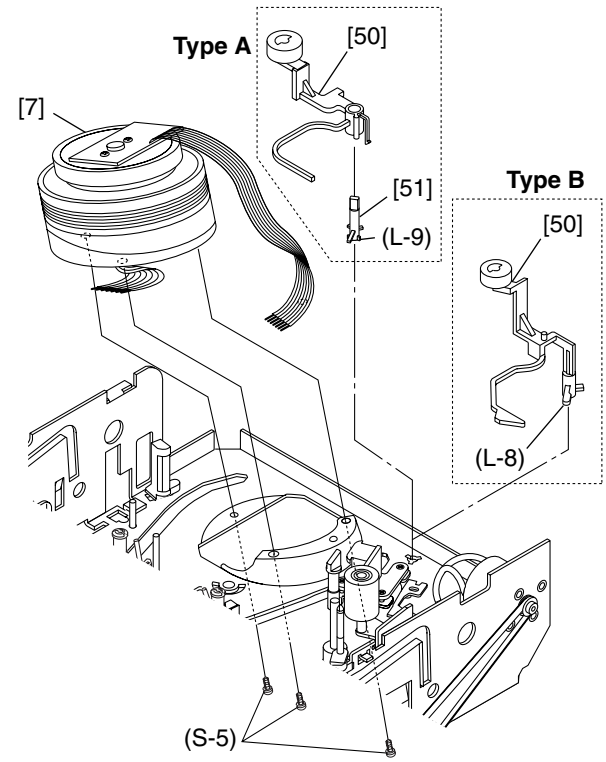


Fig. DM4



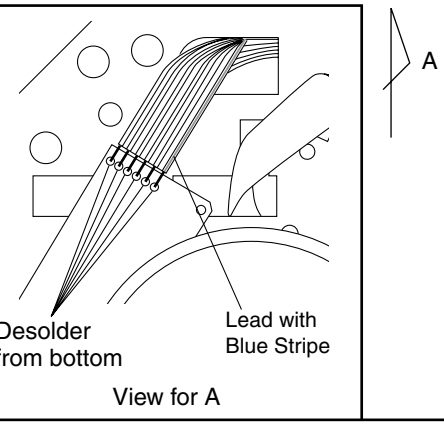


Fig. DM6

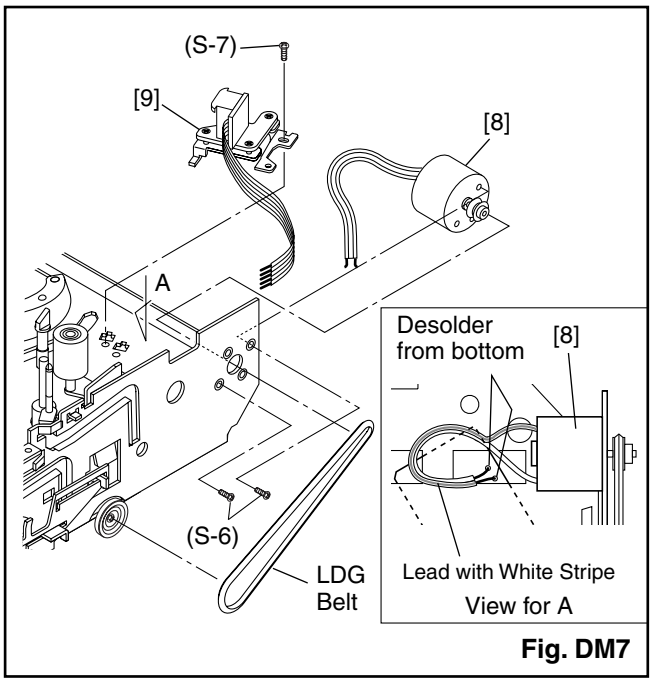


Fig. DM7

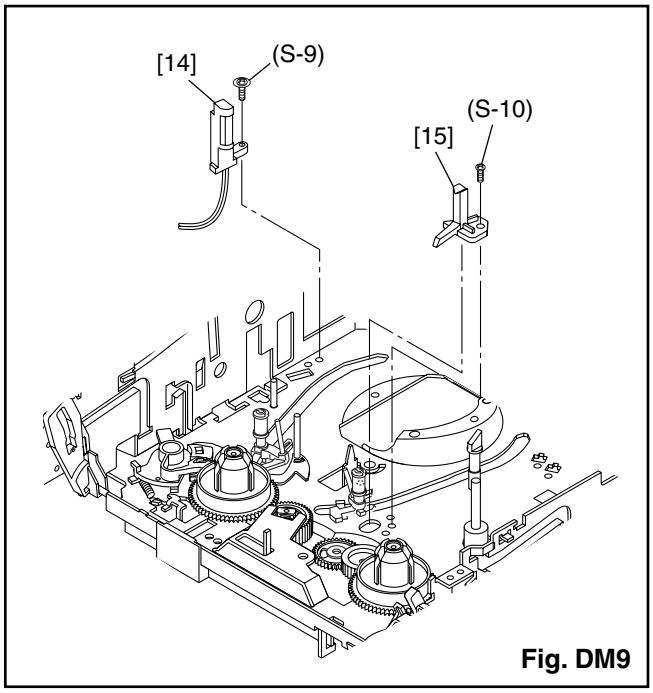
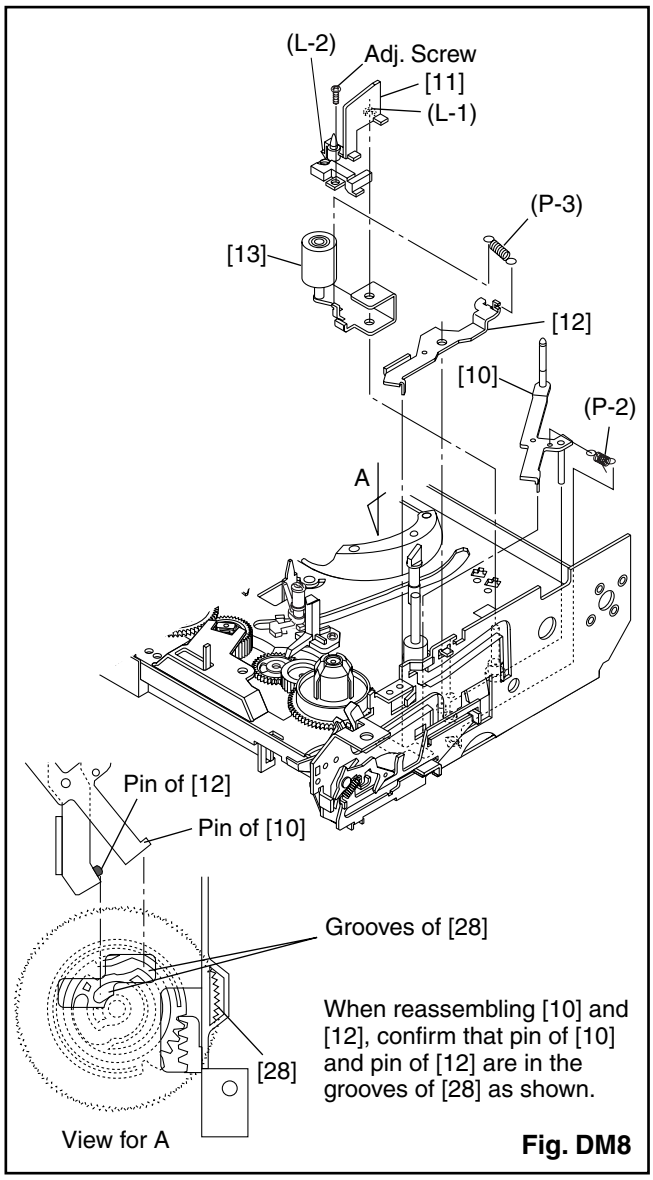


Fig. DM9



When reassembling [10] and [12], confirm that pin of [10] and pin of [12] are in the grooves of [28] as shown.

Fig. DM8

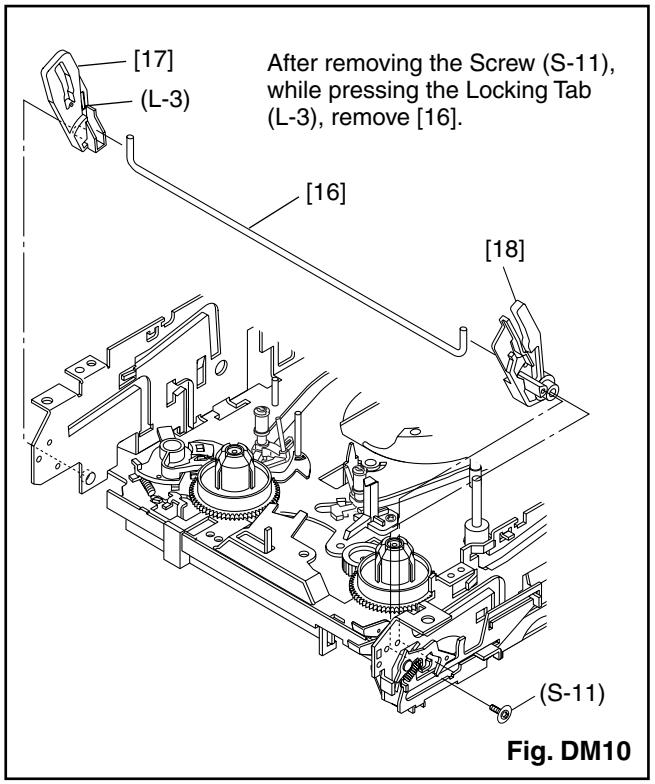


Fig. DM10

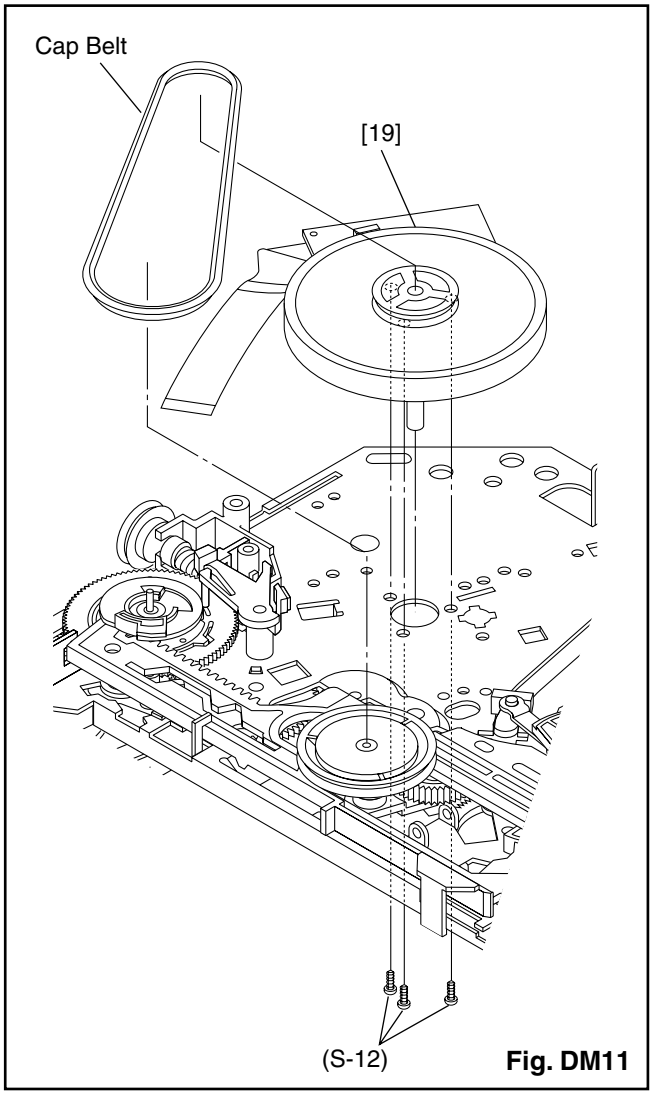


Fig. DM11

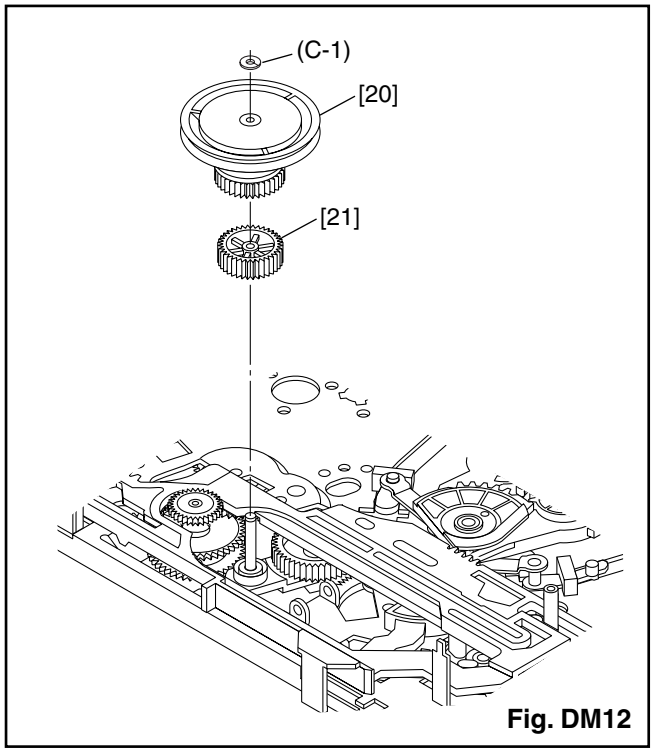
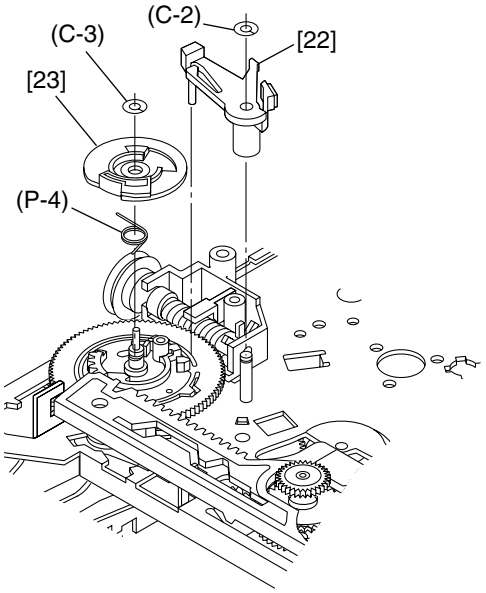
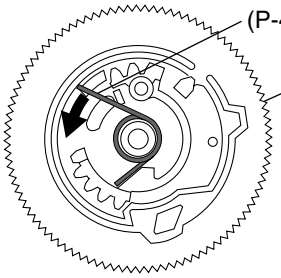


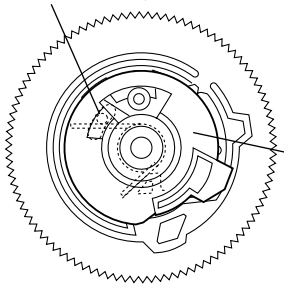
Fig. DM12



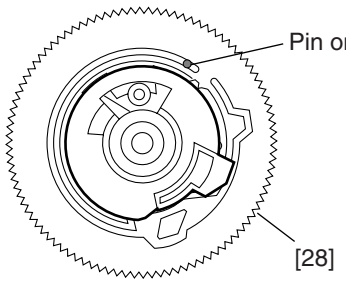


When installing [23], install the spring (P-4) to [28] as shown in the left figure, and then install [23] while pressing the spring (P-4) to the direction of the arrow in the left figure and confirming that the position of the spring (P-4) is placed as shown in the left figure.

Pin on bottom of [23]

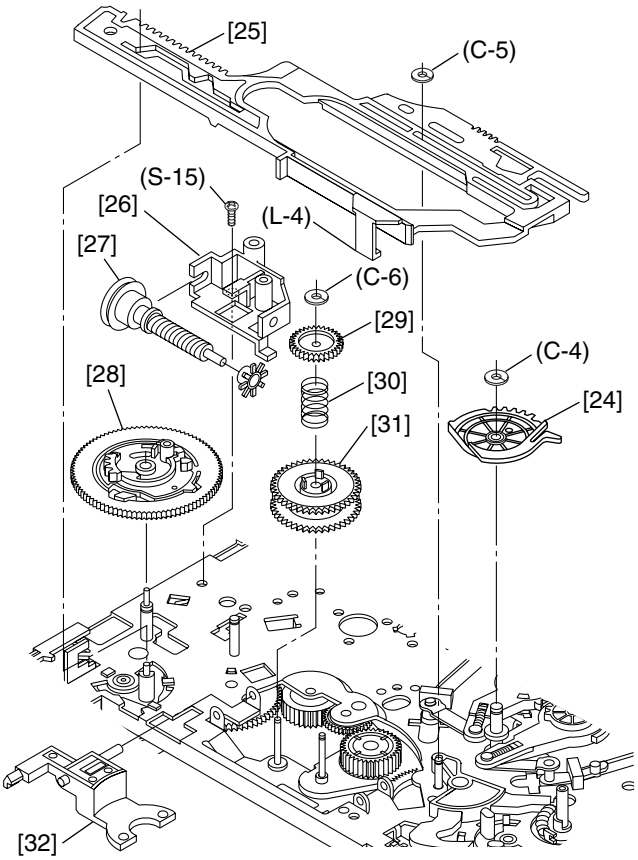


Top View

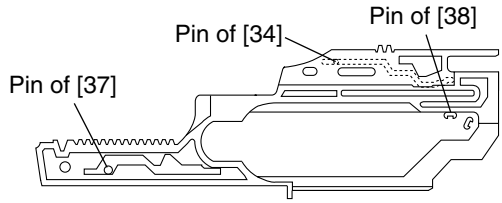


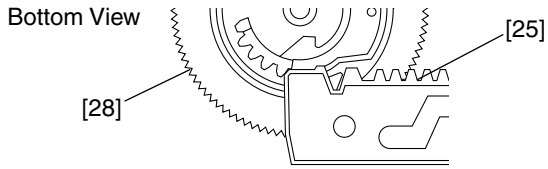
Position of pin on [22]

Fig. DM13

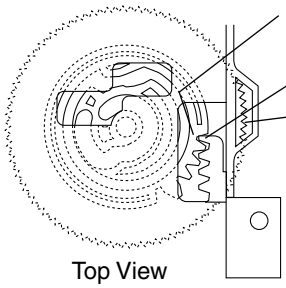


Position of Mode Lever when installed





Align [25] and [28] as shown.



When reassembling [28], meet the first groove on [28] to the first tooth on [48] as shown.

Top View

Fig. DM14

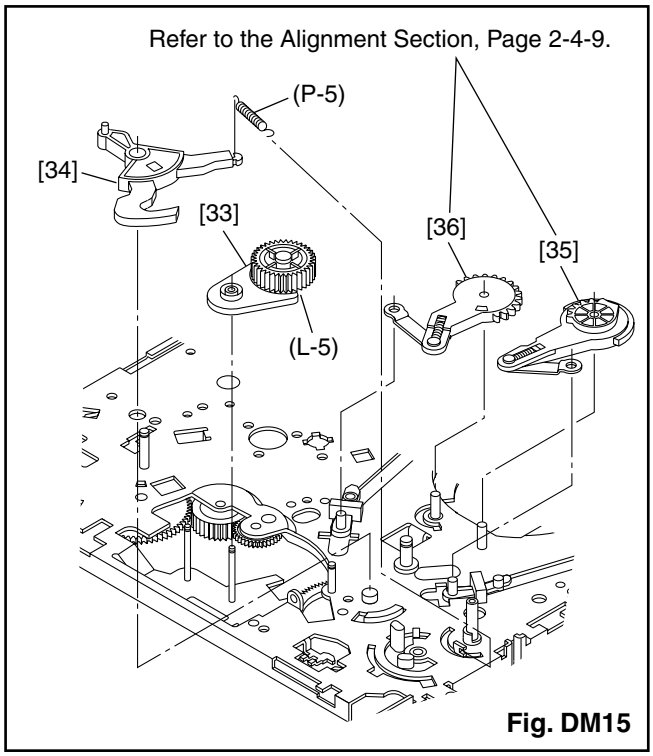


Fig. DM15

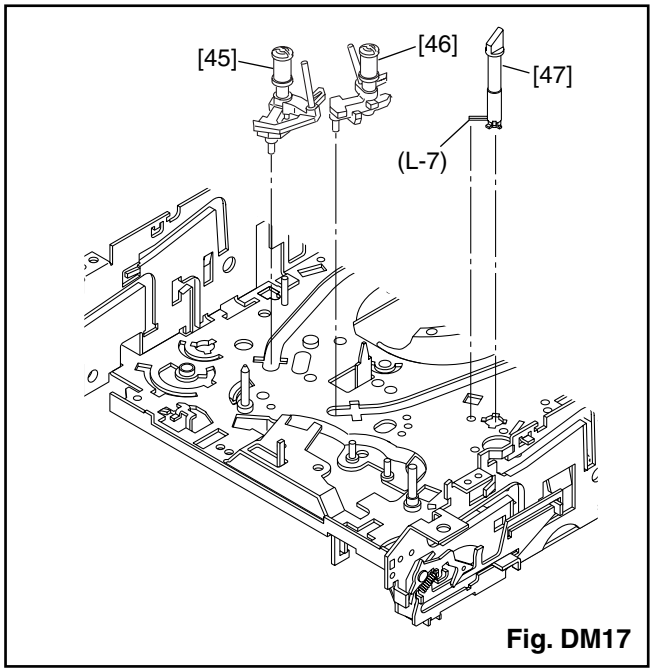


Fig. DM17

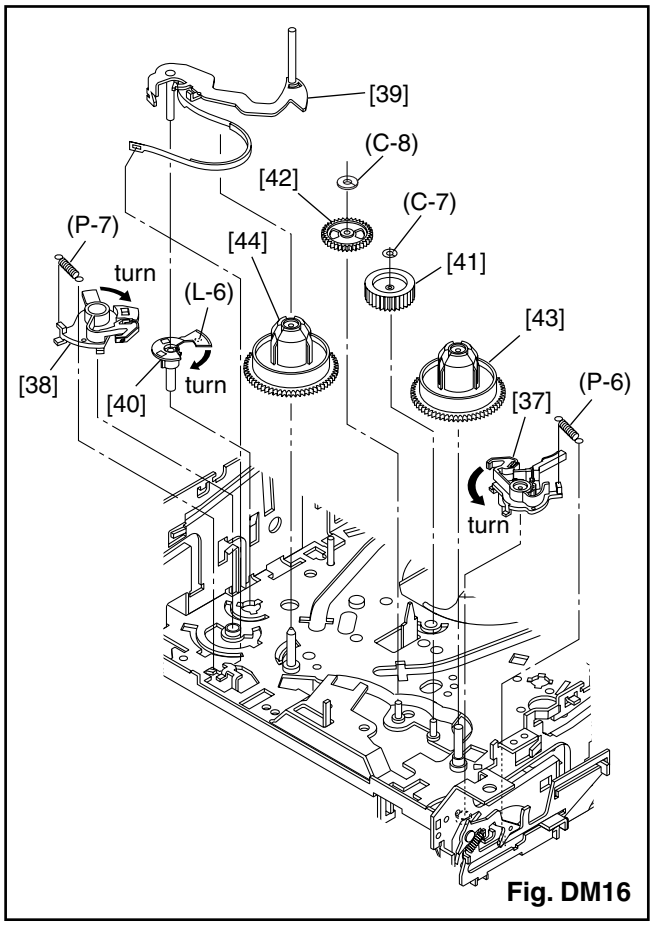


Fig. DM16

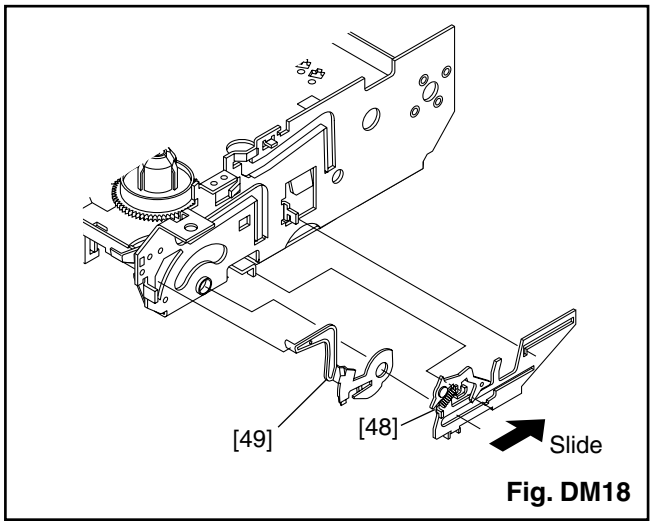


Fig. DM18

ALIGNMENT PROCEDURES OF MECHANISM

The following procedures describe how to align the individual gears and levers that make up the tape loading/unloading mechanism. Since information about the state of the mechanism is provided to the System Control Circuit only through the Mode Switch, it is essential that the correct relationship between individual gears and levers be maintained.

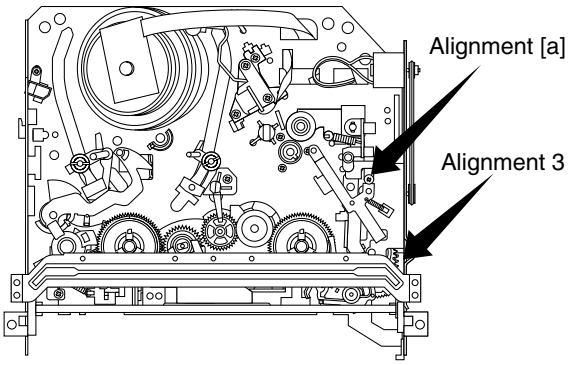
All alignments are to be performed with the mechanism in Eject mode, in the sequence given. Each procedure assumes that all previous procedures have been completed.

IMPORTANT:

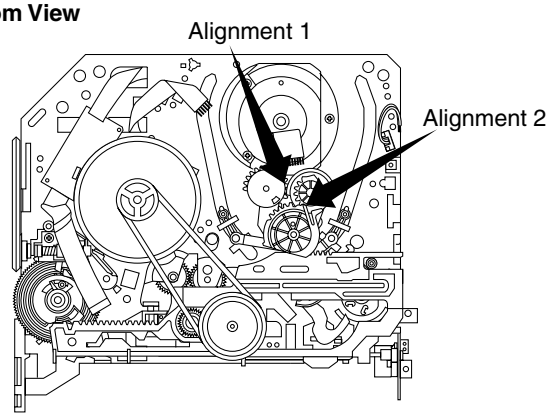
If any one of these alignments is not performed properly, even if off by only one tooth, the unit will unload or stop and it may result in damage to the mechanical or electrical parts.

Alignment points in Eject Position

Top View



Bottom View



Alignment [a] can be done independently of any other alignment.

Fig. AL1

Alignment 1

Loading Arm, S and T Assembly

Install Loading Arm S and T Assembly so that their triangle marks point to each other as shown in Fig. AL2.

Alignment 2

Mode Gear

Keeping the two triangles pointing at each other, install the Loading Arm T Assembly so that the last tooth of the gear meets the most inside teeth of the Mode Gear. See Fig. AL2.

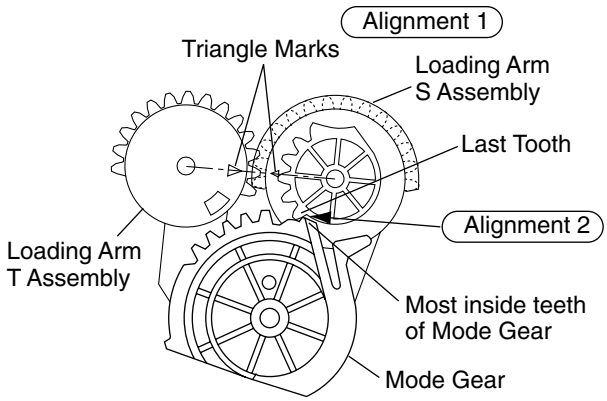


Fig. AL2

Alignment [a]

Tape Guide Assembly

Measurement of the screw must be as specified in Fig. AL3.

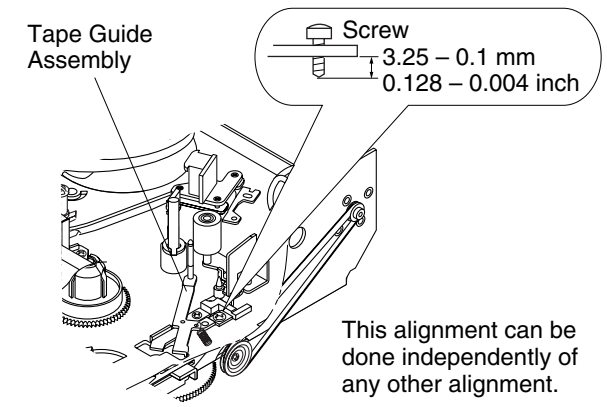


Fig. AL3

Alignment 3

Cam Gear (A), Rack Assembly

Install the Rack Assembly so that the first tooth on the gear of the Rack Assembly meets the first groove on the Cam Gear (A) as shown in Fig. AL4.

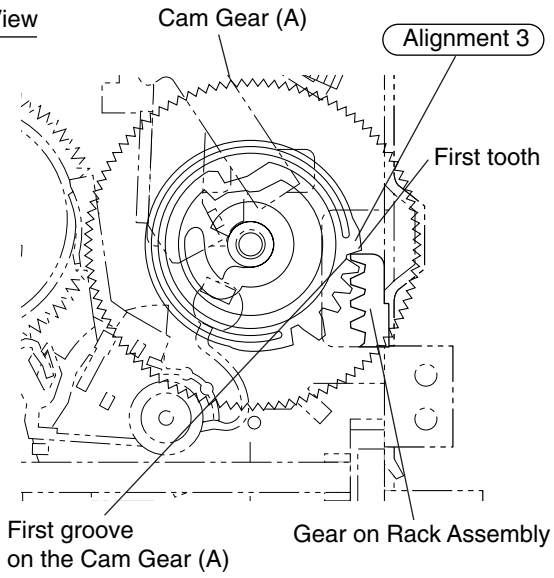
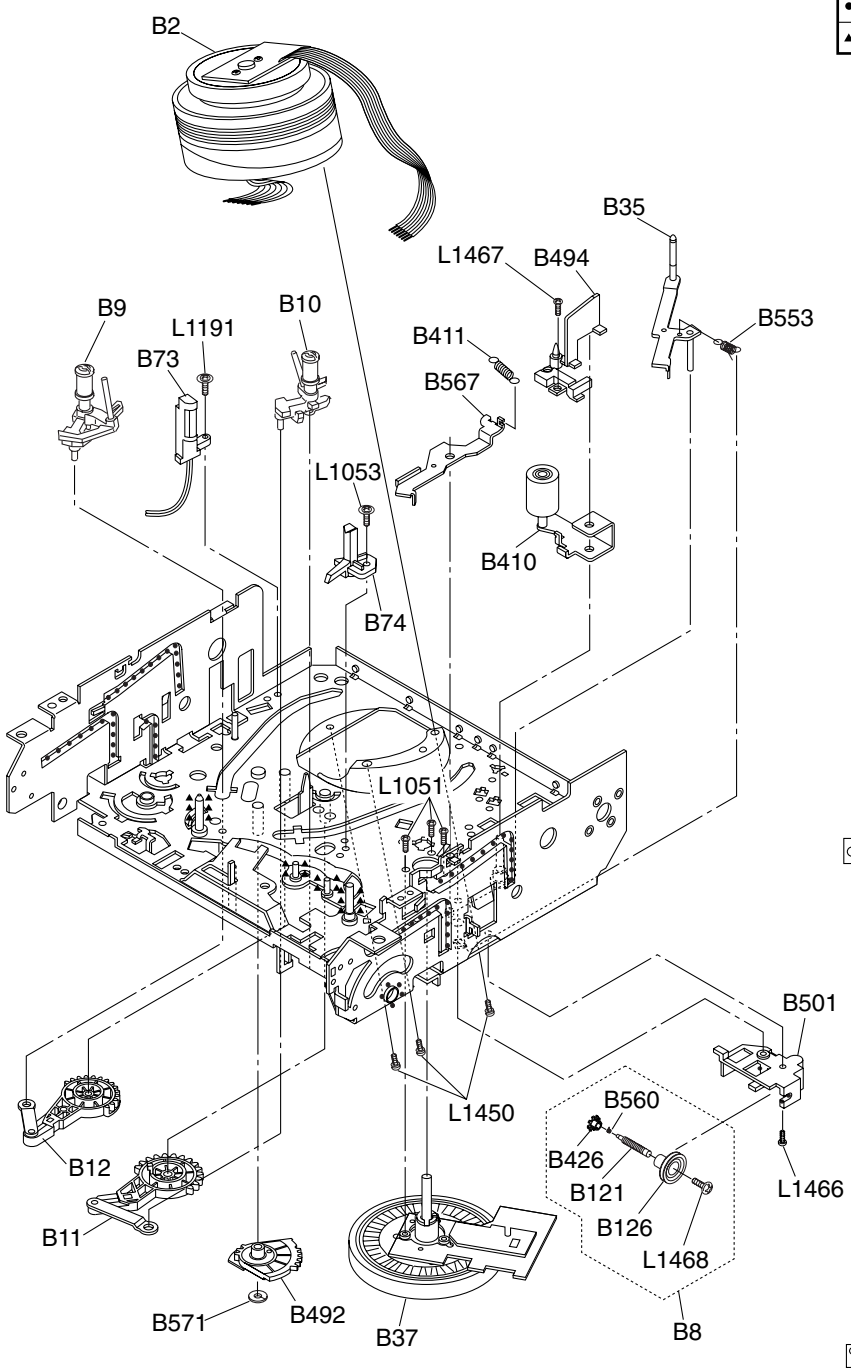


Fig. AL4

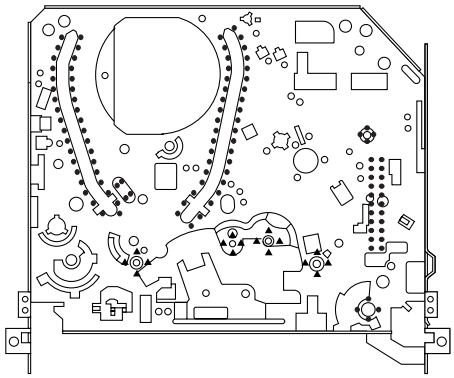
DECK EXPLODED VIEWS

Deck Mechanism View 1

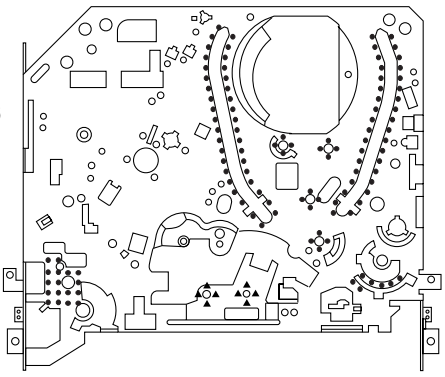
Mark	Description
•••••	Floil G-374G (Blue grease)
▲▲▲▲▲	SLIDUS OIL #150



Some Ref. Numbers are not in sequence.

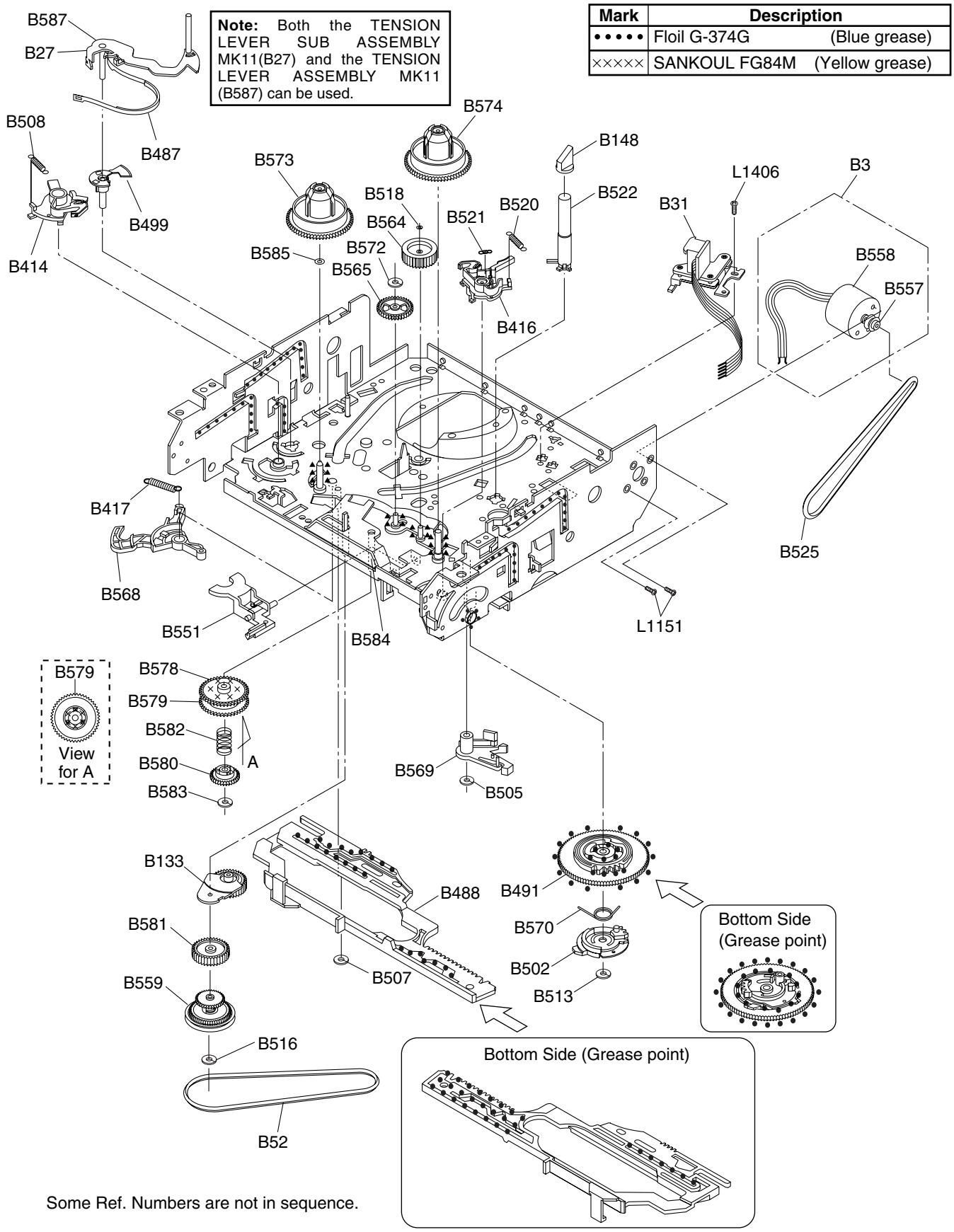


Chassis Assembly
Top View (Lubricating Point)



Chassis Assembly
Bottom View (Lubricating Point)

Deck Mechanism View 2



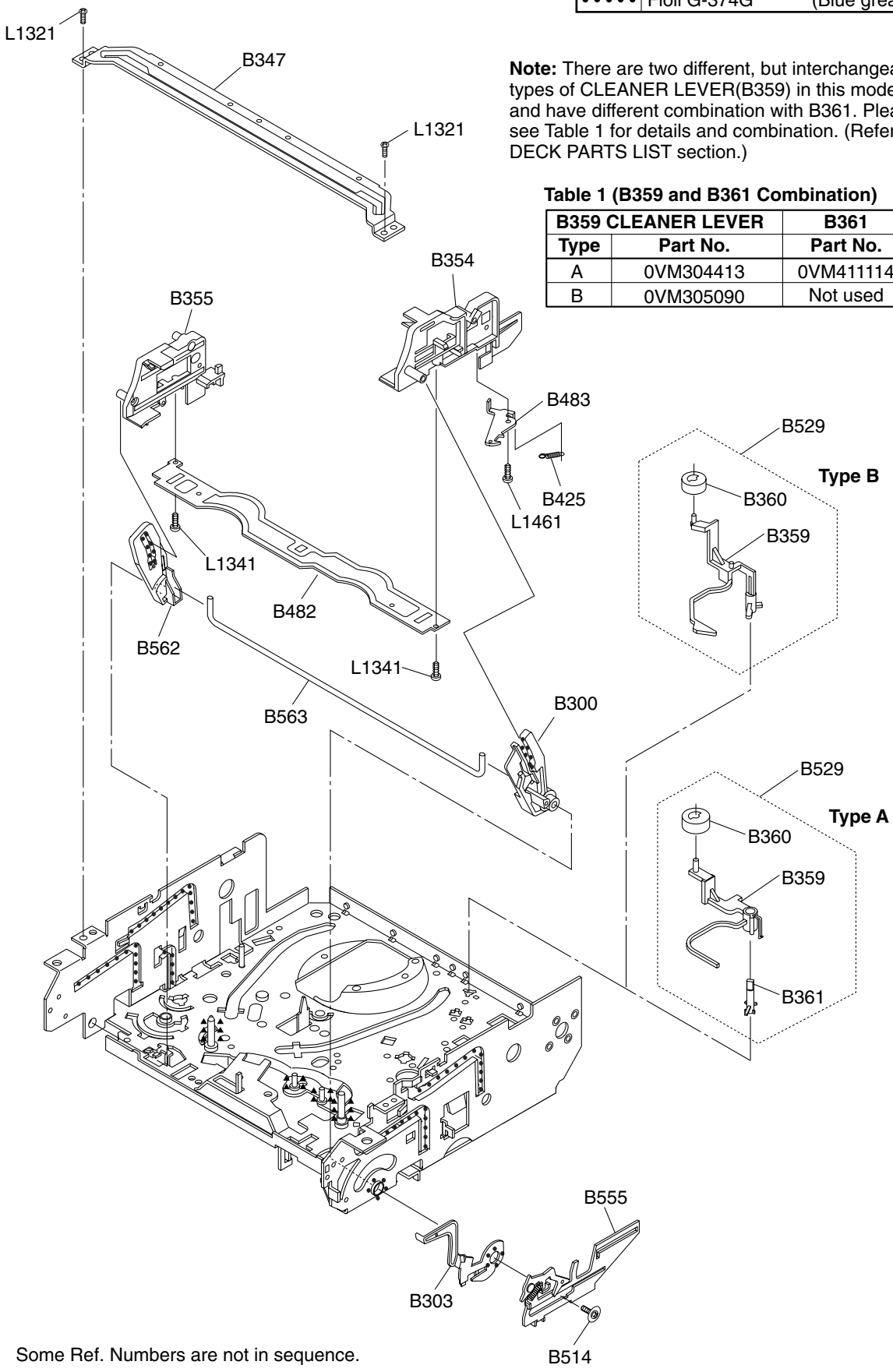
Note: Both the TENSION LEVER SUB ASSEMBLY MK11(B27) and the TENSION LEVER ASSEMBLY MK11 (B587) can be used.

Mark	Description
•••••	Floil G-374G (Blue grease)
×××××	SANKOUL FG84M (Yellow grease)

Some Ref. Numbers are not in sequence.

Deck Mechanism View 3

Mark	Description
• • • • •	Floil G-374G (Blue grease)



Note: There are two different, but interchangeable types of CLEANER LEVER(B359) in this model, and have different combination with B361. Please see Table 1 for details and combination. (Refer to DECK PARTS LIST section.)

Table 1 (B359 and B361 Combination)

B359 CLEANER LEVER		B361
Type	Part No.	Part No.
A	0VM304413	0VM411114
B	0VM305090	Not used

Some Ref. Numbers are not in sequence.

DECK PARTS LIST

Notes:

1. There are two different, but interchangeable types of CLEANER LEVER(B359) in this model, and have different combination with B361. Please see Table 1 for details and combination.

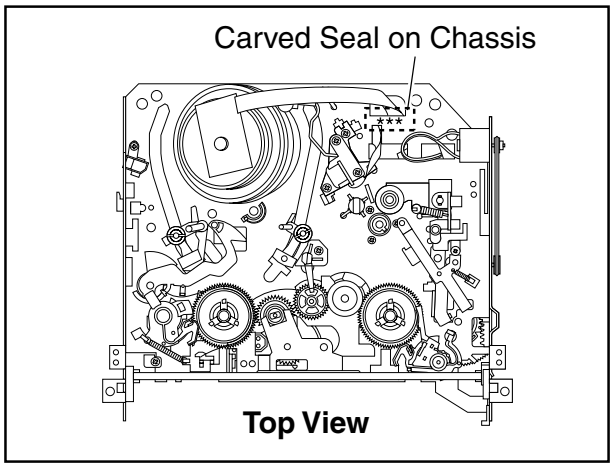
Table 1 (B359 and B361 Combination)

B359 CLEANER LEVER		B361
Type	Part No.	Part No.
A	0VM304413	0VM411114
B	0VM305090	Not used

2. There are two different types of RACK ASSEMBLY(B555), and have different combination with B514. Please see Table 2 for details and combination.

Table 2 (B555 and B514 Combination)

Carved Seal on Chassis (see below)	B555 RACK ASSEMBLY		B514
	Type	Part No.	Part No.
"1xx" or "2xx"	A	0VSA12071	0VM412597
"3xx" or "4xx"	B	0VSA12887	0VM411535



3. Comparison Chart of Models and Marks

Model	Mark
DVD740VR/001	A
DVD740VR/051	B

Ref. No.	Description	Part No.	A	B
B2	CYLINDER ASSEMBLY MK11 PAL 4HD HIFI or	N1567CYL	1	1
	CYLINDER ASSEMBLY(V) MK11 PAL 4HD HIFI	N1569CYL	1	1
B3	LOADING MOTOR ASSEMBLY MK11	0VSA12093	1	1
B8	PULLEY ASSEMBLY MK11	0VSA12078	1	1
B9	MOVING GUIDE S PREPARATION MK10	0VSA11002	1	1
B10	MOVING GUIDE T PREPARATION MK10	0VSA11004	1	1
B11	LOADING ARM T(B) ASSEMBLY MK11	0VSA12110	1	1
B12	LOADING ARM S(B) ASSEMBLY MK11	0VSA12109	1	1
B27	TENSION LEVER SUB ASSEMBLY MK11	0VSA12076A	1	1
B31	AC HEAD ASSEMBLY MK11	0VSA12074	1	1
B35	TAPE GUIDE ASSEMBLY MK11	0VSA12069	1	1
B37	CAPSTAN MOTOR 288/VCCM011	N9661CML	1	1
B52	CAP BELT MK10	0VM411138	1	1
B73	FE HEAD ASSEMBLY MK11 or	N9742FEL	1	1
	FE HEAD(MK11) MH-131SF11 or	DHVEC01Z0005	1	1
	FE HEAD ASSEMBLY MK11 or	N9743FEL	1	1
	FE HEAD(MK11) VTR-1X2ERS11-148	DHVEC01TE004	1	1
B74	PRISM MK10	0VM202870	1	1
B121	WORM MK11	0VM412544	1	1
B126	PULLEY MK11	0VM412543	1	1
B133	IDLER ASSEMBLY(2) MK10	0VSA11531	1	1
B148	TG CAP MK6	0VM407664C	1	1
B300	C DRIVE LEVER R MK11	0VM305068	1	1
B303	F DOOR OPENER MK11	0VM203299	1	1
B347	GUIDE HOLDER A MK10	0VM304920	1	1
B354	SLIDER R MK11	0VM101040	1	1
B355	SLIDER L MK11	0VM203296	1	1
B359	CLEANER LEVER MK10 or	0VM304413	1	1
	CLEANER LEVER MK11	0VM305090	1	1
B360	CLEANER ROLLER MK9	0VM410032C	1	1
B361	CL POST MK10	0VM411114	1	1
B410	PINCH ARM(A) ASSEMBLY(Y) MK11 or	0VSA12807	1	1
	PINCH ARM(A) ASSEMBLY(M) MK11 or	0VSA12808	1	1
	PINCH ARM(A) ASSEMBLY(F) MK11	0VSA12809	1	1
B411	PINCH SPRING MK10	0VM411092	1	1
B414	M BRAKE S(HI) ASSEMBLY MK11	0VSA12225	1	1
B416	M BRAKE T(HI) ASSEMBLY MK11	0VSA12226	1	1
B417	TENSION SPG(190256) MK11	0VM413624	1	1
B425	LOCK LEVER SPRING MK10	0VM411110	1	1
B426	KICK PULLEY MK10	0VM411095	1	1
B482	C PLATE MK11	0VM203297	1	1
B483	LOCK LEVER MK10	0VM411109D	1	1
B487	BAND BRAKE MK10	0VM304416B	1	1
B488	MODE LEVER(HI) MK11	0VM101042L	1	1
B491	CAM GEAR(A) MK11	0VM101044	1	1
B492	MODE GEAR MK11	0VM305074	1	1
B494	DOOR OPENER B MK11	0VM305072	1	1
B499	T LEVER HOLDER MK10	0VM304419	1	1
B501	WORM HOLDER MK11	0VM305067	1	1
B502	CAM GEAR(B) MK10	0VM304403	1	1
B505	PSCW(625504) MK11	0VM413288	1	1
B507	REEL WASHER MK9 5*2.1*0.5	0VM410058	1	1
B508	S BRAKE SPRING(19T) MK11	0VM413581	1	1
B513	PSCW(752605) MK10	0VM411516	1	1
B514	SCREW RACK MK11 or	0VM412597	1	1
	SCREW RACK MK10	0VM411535	1	1
B516	REEL WASHER MK9 5*2.1*0.5	0VM410058	1	1
B518	P.S.W CUT 1.6X4.0X0.5T	0VM408485A	1	1
B520	T BRAKE SPRING HI(F) MK11	0VM412778	1	1
B521	SOFT SPRING MK10	0VM411122	1	1
B522	TG POST ASSEMBLY MK10	0VSA11012	1	1
B525	LDG BELT MK11	0VM412804	1	1
B529	CLEANER ASSEMBLY MK11	0VSA12086	1	1
B551	FF ARM(HI) MK10	0VM304438L	1	1

Ref. No.	Description	Part No.	A	B
B553	REV SPRING MK11	0VM412555	1	1
B555	RACK ASSEMBLY MK11 or	0VSA12071	1	1
	RACK(T1.2) ASSEMBLY MK11	0VSA12887	1	1
B557	MOTOR PULLEY U5	0VM403205A	1	1
B558	LOADING MOTOR M31E-1 R14 7351	MMDZB12MM002	1	1
B559	CLUTCH ASSEMBLY(HI)(2) MK11	0VSA12367	1	1
B560	KICK SPRING MK10	0VM411475A	1	1
B562	C DRIVE LEVER L MK10	0VM304408	1	1
B563	SLIDER SHAFT MK10	0VM411112	1	1
B564	M GEAR(HYT) N12G5F*	0VM412378	1	1
B565	SENSOR GEAR MK11	0VM305080	1	1
B567	PINCH ARM(B) MK10	0VM304396	1	1
B568	BT ARM MK10	0VM304417H	1	1
B569	CAM HOLDER F MK11	0VM305075	1	1
B570	CAM RACK SPRING(HI) MK11	0VM412923	1	1
B571	P.S.W F 6*2.55*0.5	0VM402629A	1	1
B572	P.S.W CUT 1.6X4.0X0.5T	0VM408485A	1	1
B573	REEL S MK11	0VM203436	1	1
B574	REEL T MK10	0VM202872C	1	1
B578	TR GEAR A MK10	0VM304440	1	1
B579	TR GEAR B MK10	0VM304441C	1	1
B580	TR GEAR C MK11	0VM305094	1	1
B581	CENTER GEAR(HYT) N12G5F* or	0VM412379	1	1
	CENTER GEAR MK11	0VM305081	1	1
B582	TR GEAR SPRING MK10	0VM411187	1	1
B583	REEL WASHER MK9 5*2.1*0.5	0VM410058	1	1
B584	TR GEAR SHAFT MK10	0VM411186	1	1
B585	PSW(317505) MK11	0VM413663	1	1
B587	TENSION LEVER ASSEMBLY MK11	0VSA12075A	1	1
L1051	SCREW, B-TIGHT M2.6X6 PAN HEAD+	GPMB9060	1	1
L1053	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080	1	1
L1151	SCREW, SEMS M2.6X4 PAN HEAD+	CPM39040	1	1
L1191	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080	1	1
L1321	SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060	1	1
L1341	SCREW, P-TIGHT M2.6X6 BIND HEAD+	GBMP9060	1	1
L1406	AC HEAD SCREW MK9	0VM410964	1	1
L1450	SCREW, SEMS M2.6X5 PAN HEAD+	CPM39050	1	1
L1461	SCREW, P-TIGHT M2.6X6 WASHER HEAD+	GCMP9060	1	1
L1466	SCREW, S-TIGHT M2.6X6 BIND HEAD+	GBMS9060	1	1
L1467	SCREW, S-TIGHT M2.6X5 WASHER HEAD+	GCMS9050	1	1
L1468	SCREW, B-TIGHT M1.7X12	GAMB7120	1	1

Spare Parts List

Mechanical /001

Various

A2	9965 000 14773	TOP COVER H9200UD
A4	9965 000 14774	PANEL, REAR H9330ED
A8	9965 000 14775	DOOR, CASSETTE H9330ED
A9	9965 000 09192	SPRING, DOOR H7220UD U15
X1	9965 000 14781	REMOTE CONTROL UNIT 364/CRC006
X3	4822 320 50377	CONNECT. CABLE PAL
X6	9965 000 14782	SCART CABLE 1.5M CE10130200857
1B1	9965 000 12399	DECK ASSEMBLY CZD011/VM15E0
1B2	9965 000 14777	DVD MECHA 0838 VCDVM030
2B1	9965 000 14778	DECK PEDESTAL-1 H9200UD
2B6	9965 000 14779	DECK PEDESTAL-2 H9200UD
A1X	9965 000 14772	FRONT ASSEMBLY H9330ED
A20	9965 000 14776	TRAY PANEL ASSEMBLY H9231CD
1000	9965 000 14793	DVD MAIN CBA UNIT
1001	9965 000 14794	MHz V CBA /001
1002	9965 000 14795	POWER SUPPLY CBA
1009	9965 000 14770	AFV CBA /001

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2B40	9965 000 14780	INSULATOR H9311BD
AC1001	9965 000 14851	AC CORD PE8B2CB980A-057
X20A!	9965 000 14783	OWNER'S MANUAL(E) H9330ED
X20B!	9965 000 14784	OWNER'S MANUAL(G) H9330ED
X20C!	9965 000 14785	OWNER'S MANUAL(D) H9330ED
X20D!	9965 000 14786	OWNER'S MANUAL(F) H9330ED
X20E!	9965 000 14787	OWNER'S MANUAL(S) H9330ED
X20F!	9965 000 14788	OWNER'S MANUAL(P) H9330ED
X20G!	9965 000 14789	OWNER'S MANUAL(I) H9330ED
X20H!	9965 000 14790	OWNER'S MANUAL(GE) H9330ED
X20I!	9965 000 14791	OWNER'S MANUAL(SW) H9330ED
X20J!	9965 000 14792	OWNER'S MANUAL(FI) H9330ED

Mechanical /051

Various

A2	9965 000 14773	TOP COVER H9200UD
A4	9965 000 15345	PANEL, REAR H9331BD
A8	9965 000 14775	DOOR, CASSETTE H9330ED
A9	9965 000 09192	SPRING, DOOR H7220UD U15
X1	9965 000 15346	REMOTE CONTROL UNIT 364/CRC006
X3	4822 320 50377	CONNECT. CABLE PAL
X6	9965 000 14782	SCART CABLE 1.5M CE10130200857
1B1	9965 000 12399	DECK ASSEMBLY CZD011/VM15E0
1B2	9965 000 14777	DVD MECHA 0838 VCDVM030
2B1	9965 000 14778	DECK PEDESTAL-1 H9200UD
2B6	9965 000 14779	DECK PEDESTAL-2 H9200UD
A1X	9965 000 15344	FRONT ASSEMBLY H9331BD
A20	9965 000 14776	TRAY PANEL ASSEMBLY H9231CD
1000	9965 000 14793	DVD MAIN CBA UNIT
1001	9965 000 15349	MHz V CBA /051
1002	9965 000 14795	POWER SUPPLY CBA
1009	9965 000 14770	AFV CBA /001

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2B40	9965 000 14780	INSULATOR H9311BD
AC1001	9965 000 15347	AC CORD PQ8B1V5980A-05B
X20A!	9965 000 15348	OWNER'S MANUAL H9331BD

MCV CBA /051

Various

1008	9965 000 14801	SENSOR CBA

Main CBA /051

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C055	9965 000 15242	ELECTROLYTIC . 100µF /25V M
C056	9965 000 14863	ELECTROLYTIC . 47µF /25V M
C058	9965 000 15243	ELECTRIC DOUBLE LAYER 0.047
C063	9965 000 15244	ELECTROLYTIC . 47µF /16V M
C101	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C102	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C103	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C104	9965 000 15246	ELECTROLYTIC . 100µF /16V M
C107	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C108	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C117	9965 000 15289	ELECTROLYTIC . 1µF /50V M
C121	9965 000 15246	ELECTROLYTIC . 100µF /16V M
C251	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C254	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C302	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C305	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C312	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C313	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C316	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C328	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C330	9965 000 15293	ELECTROLYTIC . 100µF /16V M
C331	9965 000 15294	ELECTROLYTIC . 220µF /6.3V M
C334	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C335	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C340	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C343	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C344	9965 000 15296	ELECTROLYTIC . 4.7µF /25V M
C345	9965 000 15297	ELECTROLYTIC . 0.47µF /50V M
C405	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C406	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C410	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C412	9965 000 15299	ELECTROLYTIC . 33µF /6.3V M
C415	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C417	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C421	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C451	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C454	9965 000 15301	ELECTROLYTIC . 2.2µF /50V M
C455	9965 000 15301	ELECTROLYTIC . 2.2µF /50V M
C456	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C457	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C458	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C459	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C460	9965 000 15302	ELECTROLYTIC . 47µF /16V M H
C462	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C463	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C468	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C469	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C470	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C471	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C473	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C475	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C478	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C479	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C480	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C506	9965 000 15294	ELECTROLYTIC . 220µF /6.3V M
C511	4822 126 12787	330pF 10% 50V
C514	4822 126 12787	330pF 10% 50V
C516	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C521	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C534	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C549	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C550	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C553	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C632	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C633	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C635	9965 000 12290	SEMICONDUCTOR . SR K 0.056U
C636	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C637	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C701	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C708	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C752	9965 000 15304	ELECTROLYTIC . 47µF /10V M
C753	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C754	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M

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D051	4822 157 10332	
D052	5322 130 81917	SB140
D053	4822 130 31933	1N5061
D054	9965 000 09283	ZENER DIODE DZ-10BSBT265
D055	4822 130 31933	1N5061
D056	4822 130 30621	1N4148
D057	5322 130 81917	SB140
D101	9965 000 12178	ZENER DIODE DZ-11BSAT265
D102	9965 000 12178	ZENER DIODE DZ-11BSAT265
D103	9965 000 12178	ZENER DIODE DZ-11BSAT265
D104	9965 000 12178	ZENER DIODE DZ-11BSAT265
D105	9965 000 12178	ZENER DIODE DZ-11BSAT265
D106	9965 000 12178	ZENER DIODE DZ-11BSAT265
D107	9965 000 12178	ZENER DIODE DZ-11BSAT265
D108	9965 000 12178	ZENER DIODE DZ-11BSAT265
D109	9965 000 12178	ZENER DIODE DZ-11BSAT265
D110	9965 000 12178	ZENER DIODE DZ-11BSAT265
D112	9965 000 12178	ZENER DIODE DZ-11BSAT265
D113	9965 000 12178	ZENER DIODE DZ-11BSAT265
D115	9965 000 12178	ZENER DIODE DZ-11BSAT265
D118	9965 000 12178	ZENER DIODE DZ-11BSAT265

D119	9965 000 12178	ZENER DIODE DZ-11BSAT265
D121	9965 000 12178	ZENER DIODE DZ-11BSAT265
D301	4822 130 30621	1N4148
D506	9965 000 08623	LED(GREEN) 204-10GD/S957
D507	9965 000 08623	LED(GREEN) 204-10GD/S957
D508	9965 000 08621	LED(RED) 204HD/E
D510	4822 130 30621	1N4148
D511	9965 000 15309	ZENER DIODE DZ-7.5BSAT265
D512	4822 130 30621	1N4148
D513	4822 130 30621	1N4148
D555	9965 000 05250	LED SIR-563ST3F P
D701	9965 000 09183	ZENER DIODE DZ-33BSDT265
D751	9965 000 15310	ZENER DIODE DZ-8.2BSAT265

L051	4822 157 10332	
L052	9965 000 05627	CHOKE COIL 47µH -K
L053	4822 157 10649	100µH
L101	4822 526 10685	BEAD CORE
L102	4822 526 10685	BEAD CORE
L251	9965 000 08652	INDUCTOR 5.6µH -K-26T
L302	4822 157 63316	
L401	9965 000 05627	CHOKE COIL 47µH -K
L402	9965 000 05705	INDUCTOR 47µH -K-5FT
L451	9965 000 05627	CHOKE COIL 47µH -K
L452	9965 000 05627	CHOKE COIL 47µH -K
L501	4822 157 10649	100µH
L502	4822 157 10332	
L503	9965 000 08629	INDUCTOR 1.8µH -K-26T
L701	4822 157 11511	15µH -K-26T
L702	4822 157 10332	
L703	9965 000 05627	CHOKE COIL 47µH -K
L704	4822 157 10889	10µH

Q051	9965 000 12190	TRANSISTOR KTA1281(Y)
Q052	4822 130 10098	KRC103M
Q053	4822 130 42292	2SC2120Y
Q054	4822 130 10098	KRC103M
Q055	4822 130 10103	KTC3199Y
Q056	4822 130 42292	2SC2120Y
Q057	4822 130 10145	KRA103M
Q101	4822 130 10103	KTC3199Y
Q102	4822 130 10103	KTC3199Y
Q103	4822 130 42959	2SA1015Y
Q104	4822 130 42959	2SA1015Y
Q105	4822 130 10103	KTC3199Y
Q301	4822 130 42959	2SA1015Y
Q302	4822 130 10103	KTC3199Y
Q401	4822 130 10103	KTC3199Y
Q402	4822 130 10103	KTC3199Y
Q403	4822 130 42292	2SC2120Y
Q404	4822 130 42959	2SA1015Y
Q405	4822 130 10145	KRA103M
Q406	4822 130 10103	KTC3199Y
Q451	4822 130 10098	KRC103M
Q501	4822 130 10103	KTC3199Y
Q502	4822 130 10103	KTC3199Y
Q506	9965 000 08630	PHOTO TRANSISTOR PT204-6B-12
Q507	4822 130 10103	KTC3199Y
Q508	4822 130 10103	KTC3199Y
Q509	4822 130 10103	KTC3199Y
Q510	4822 130 10098	KRC103M
Q511	4822 130 10103	KTC3199Y
Q513	4822 130 10098	KRC103M
Q514	4822 130 10923	KTC3199(BL)
Q515	4822 130 10923	KTC3199(BL)
Q752	4822 130 10098	KRC103M

R054	4822 051 30223	22k 5% 0,062W
R064	4822 157 10332	
R065	4822 051 30223	22k 5% 0,062W
R101	4822 117 12925	47k 1% 0.063W 0603
R102	4822 117 12925	47k 1% 0.063W 0603
R122	4822 051 30103	10k 5% 0,062W
R134	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R140	4822 051 30223	22k 5% 0,062W
R251	4822 051 30393	39k 5% 0,062W
R301	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R303	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R304	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R305	4822 051 30103	10k 5% 0,062W
R315	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R319	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R320	4822 051 30393	39k 5% 0,062W
R322	4822 051 30103	10k 5% 0,062W
R325	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R327	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R328	4822 051 30561	560Ω 5% 0,062W
R331	4822 051 30183	18k 5% 0,062W
R332	4822 051 30103	10k 5% 0,062W
R333	4822 051 30183	18k 5% 0,062W
R334	4822 051 30103	10k 5% 0,062W
R337	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R339	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R403	4822 051 30103	10k 5% 0,062W
R404	4822 051 30103	10k 5% 0,062W
R405	4822 117 12925	47k 1% 0.063W 0603
R406	4822 051 30223	22k 5% 0,062W
R407	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R409	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R410	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R413	4822 051 30334	330k 5% 0,062W
R416	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R419	4822 051 30103	10k 5% 0,062W
R420	9965 000 09214	CARBON RES. 1/6W J 5.6k Ω
R452	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R453	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R454	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R455	4822 051 30393	39k 5% 0,062W
R456	4822 051 30393	39k 5% 0,062W
R458	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R459	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R460	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R461	4822 051 30223	22k 5% 0,062W
R462	4822 117 12902	8k2 1% 0.063W 0603
R463	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R464	4822 051 30393	39k 5% 0,062W
R465	4822 051 30393	39k 5% 0,062W
R466	4822 117 12902	8k2 1% 0.063W 0603
R467	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R468	4822 051 30393	39k 5% 0,062W
R469	4822 051 30393	39k 5% 0,062W
R470	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R471	4822 117 12902	8k2 1% 0.063W 0603
R475	4822 051 30471	470Ω 5% 0,062W
R476	4822 051 30103	10k 5% 0,062W
R502	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R503	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R504	4822 051 30152	1k5 5% 0,062W
R507	4822 117 12902	8k2 1% 0.063W 0603
R523	4822 116 52243	1k5 5% 0,5W
R537	4822 051 30681	680Ω 5% 0,062W
R538	4822 051 30152	1k5 5% 0,062W
R539	4822 051 30103	10k 5% 0,062W
R540	4822 051 30103	10k 5% 0,062W
R541	4822 051 30103	10k 5% 0,062W
R543	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R544	4822 051 30103	10k 5% 0,062W
R545	4822 051 30103	10k 5% 0,062W
R546	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R548	4822 051 30103	10k 5% 0,062W
R550	4822 051 30103	10k 5% 0,062W
R553	4822 051 30103	10k 5% 0,062W
R555	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R557	4822 051 30103	10k 5% 0,062W
R563	4822 051 30103	10k 5% 0,062W
R565	4822 051 30103	10k 5% 0,062W
R566	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R568	4822 117 12891	220k 1% ERJ3Ω
R569	4822 051 30103	10k 5% 0,062W
R572	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R575	4822 051 30334	330k 5% 0,062W
R576	4822 051 30103	10k 5% 0,062W
R577	4822 051 30152	1k5 5% 0,062W
R578	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R581	4822 051 30103	10k 5% 0,062W
R583	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R587	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R588	4822 051 30471	470Ω 5% 0,062W
R589	4822 051 30223	22k 5% 0,062W
R633	4822 051 30103	10k 5% 0,062W
R634	4822 051 30103	10k 5% 0,062W
R635	4822 051 30272	2k7 5% 0,062W
R636	4822 051 30103	10k 5% 0,062W
R637	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R704	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R705	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R755	4822 117 12925	47k 1% 0.063W 0603
R756	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R757	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
X301	9965 000 05629	X'TAL 4.433619MHz
X501	9965 000 12194	X'TAL 12.000MHz
X502	9965 000 12288	X'TAL 32.768KHZ(20PPM)
IC1052	9965 000 15313	1.8V REGULATOR PQ018EF01SZ
IC1053	9965 000 14884	IC KIA431-AT
IC1201	9965 000 15314	IC:OP AMP KIA4558P
IC1204	9965 000 15318	FIBER OPTIC TRANS.MODULE 0C-08

C1247	9965 000 14853	ELECTROLYTIC . 470µF /16V M
C1249	9965 000 15244	ELECTROLYTIC . 47µF /16V M
C1351	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C1356	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C1402	4822 157 10332	
IC1402	9965 000 15319	DRIVER FOR DVD(6CH) MM1567AJBE

C1442	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C1445	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C1461	9965 000 15289	ELECTROLYTIC . 1µF /50V M
C1462	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C1471	9965 000 15289	ELECTROLYTIC . 1µF /50V M
C1481	9965 000 15289	ELECTROLYTIC . 1µF /50V M
C1482	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C1486	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C1532	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
CN505	4822 267 10729	10FE-BT-VK-nF
CN701	9965 000 15351	AFV PCB ASSEMBLY CP2500/9311

D1051	9965 000 14880	PCB JUMPER D0.6-P10.0
D1052	9965 000 15311	ZENER DIODE DZ-13BSBT265
D1053	9965 000 14880	PCB JUMPER D0.6-P10.0
D1056	9965 000 14880	PCB JUMPER D0.6-P10.0
D1060	4822 130 30621	1N4148
D1401	9965 000 12178	ZENER DIODE DZ-11BSAT265
D1402	9965 000 12178	ZENER DIODE DZ-11BSAT265
D1501	4822 157 10332	
IC301	9965 000 12180	IC:Y/C/A LA71750AM-MTB
IC451	9965 000 12181	IC:HIFI LA72646M
IC501	9965 000 15312	MICROCONTROLLER 16BIT M37762MC
IC502	9965 000 06554	IC:MEMORY BR24C02F-W
IC631	9965 000 12198	IC:VPS/PDC SLICER LC74793JM-TR
IC751	9965 000 13852	IC:SWITCH TC4053BF(N) OR

L1251	9965 000 15331	INDUCTOR 0.47µH -K-26T
L1521	9965 000 05627	CHOKE COIL 47µH -K

CN10019	965 000 15306	FMnF CONNECTOR, SIDE 26P 26FMN-
CN16019	965 000 15307	FMnF CONNECTOR, TOP 21P 21FMN-B
CN20029	965 000 15308	FMnF CONNECTOR, SIDE 10P 10FMN-
PS502	9965 000 12189	PHOTO INTERRUPTER RPI-302C70

Q1051	4822 130 11691	KRA110M
Q1052	4822 130 10103	KTC3199Y
Q1053	9965 000 15332	RES. BUILT-IN TRANSISTOR KRC11
Q1054	9965 000 11122	KTC3205Y
Q1055	9965 000 11123	KTA1273Y
Q1057	4822 130 60258	2SC2001K
Q1201	4822 130 10103	KTC3199Y
Q1203	4822 130 42959	2SA1015Y
Q1204	4822 130 42959	2SA1015Y
Q1351	4822 130 10103	KTC3199Y
Q1501	4822 130 10098	KRC103M
Q1502	4822 130 10098	KRC103M

R1053	4822 051 30223	22k 5% 0,062W
R1056	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1080	4822 051 30103	10k 5% 0,062W
R1081	4822 051 30103	10k 5% 0,062W
R1201	4822 117 12891	220k 1% ERJ3Ω
R1202	4822 117 12891	220k 1% ERJ3Ω
R1203	5322 117 13028	12k 1% 0.063W 0603 RC22H
R1204	5322 117 13028	12k 1% 0.063W 0603 RC22H
R1205	5322 117 13032	18k 1% 0.063W 0603 RC22H
R1206	5322 117 13032	18k 1% 0.063W 0603 RC22H
R1207	4822 051 30393	39k 5% 0,062W
R1208	4822 051 30393	39k 5% 0,062W
R1209	2322 704 65603	RST SM 0603 RC22H 56k PM1 R
R1210	2322 704 65603	RST SM 0603 RC22H 56k PM1 R
R1211	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1212	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1223	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R1224	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R1225	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R1226	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R1245	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1247	4822 051 30393	39k 5% 0,062W
R1360	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1364	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R1502	4822 051 30103	10k 5% 0,062W
R1521	4822 157 10332	
R2039	4822 051 30103	10k 5% 0,062W
SW501	4822 276 13954	KSM0614B
SW502	4822 276 13954	KSM0614B
SW503	4822 276 13954	KSM0614B
SW504	4822 276 13954	KSM0614B
SW505	4822 276 13954	KSM0614B
SW506	9965 000 15333	LEAF SWITCH LSA-1142-1AU
SW507	9965 000 08561	ROTARY MODE SWITCH SSS-43MD
SW508	4822 276 13954	KSM0614B
SW511	9965 000 15334	TACT SWITCH KSM0611B

TP301	9965 000 15335	PCB JUMPER D0.6-P6.0
TP501	4822 157 10332	
TP502	4822 157 10332	
TP503	9965 000 15335	PCB JUMPER D0.6-P6.0
TP504	4822 157 10332	
TP751	9965 000 15336	PCB JUMPER D0.6-P28.0
TU701	9965 000 12193	TUNER UNIT TMDG2-632A
VR501	9965 000 05260	CARBON P.O.T. 100K OHM B
SW20114822	276 13954	KSM0614B
SW20124822	276 13954	KSM0614B
SW20164822	276 13954	KSM0614B
SW20174822	276 13954	KSM0614B

Tape Deck

Various

B2	9965 000 14827	CYLINDER ASSEMBLY MK11 PAL 4HD
B3	9965 000 12202	LOADING MOTOR ASSEMBLY MK11
B8	9965 000 12203	PULLEY ASSEMBLY MK11
B9	9965 000 08560	MOVING GUIDE S PREPARATION MK1
B10	9965 000 08431	MOVING GUIDE T PREPARATION MK1
B11	9965 000 12204	LOADING ARM T(B) ASSEMBLY MK11
B12	9965 000 12205	LOADING ARM S(B) ASSEMBLY MK11
B27	9965 000 14828	TENSION LEVER SUB ASSEMBLY MK1
B31	9965 000 12207	AC HEAD ASSEMBLY MK11
B35	9965 000 12208	TAPE GUIDE ASSEMBLY MK11
B37	9965 000 12209	CAPSTAN MOTOR 288/VCCM011
B52	9965 000 08593	CAP BELT MK10
B73	9965 000 12210	FE HEAD ASSEMBLY MK11
B74	9965 000 08555	PRISM MK10
B121	9965 000 12211	WORM MK11
B126	9965 000 12212	PULLEY MK11
B133	9965 000 12213	IDLER ASSEMBLY(2) MK10
B148	4822 462 11189	TG CAP
B300	9965 000 12214	C DRIVE LEVER R MK11
B303	9965 000 12215	F DOOR OPENER MK11
B347	9965 000 08445	GUIDE HOLDER MK10
B354	9965 000 12216	SLIDER R MK11
B355	9965 000 12217	SLIDER L MK11
B359	9965 000 08449	CLEANER LEVER MK10
B360	9965 000 06561	CLEANER ROLLER MK9
B361	9965 000 08450	CL POST MK10
B410	9965 000 13685	PINCH ARM(A) ASSEMBLY(Y) MK11
B411	9965 000 08453	PINCH SPRING MK10
B414	9965 000 12219	M BRAKE S(HI) ASSEMBLY MK11
B416	9965 000 12220	M BRAKE T(HI) ASSEMBLY MK11
B417	9965 000 13686	TENSION SPG(190256) MK11
B425	9965 000 08457	LOCK LEVER SPRING MK10
B426	9965 000 08458	KICK PULLEY MK10
B482	9965 000 12222	C PLATE MK11
B483	9965 000 08461	LOCK LEVER MK10
B487	9965 000 08462	BAND BRAKE MK10
B488	9965 000 14896	MODE LEVER(HI) MK11
B491	9965 000 12224	CAM GEAR(A) MK11
B492	9965 000 12225	MODE GEAR MK11
B494	9965 000 12226	DOOR OPENER B MK11
B499	9965 000 08467	T LEVER HOLDER MK10
B501	9965 000 12227	WORM HOLDER MK11
B502	9965 000 08469	CAM GEAR(B) MK10
B505	9965 000 12372	PSCW(625504) MK11
B507	9965 000 05342	REEL WASHER MK9 5*2.1*0.5
B508	9965 000 14897	S BRAKE SPRING(19T) MK11
B513	9965 000 08471	PSCW(752605) MK10
B514	9965 000 12228	SCREW RACK MK11
B516	9965 000 05342	REEL WASHER MK9 5*2.1*0.5
B518	4822 532 13159	P.S.W. 1.6X4.0X0.5T
B520	9965 000 12229	T BRAKE SPRING HI(F) MK11
B521	9965 000 08482	SOFT SPRING MK10
B522	9965 000 08483	TG POST ASSEMBLY MK10
B525	9965 000 12230	LDG BELT MK11
B529	9965 000 12231	CLEANER ASSEMBLY MK11

B551	9965 000 12232	FF ARM(HI) MK10
B553	9965 000 12233	REV SPRING MK11
B555	9965 000 12234	RACK ASSEMBLY MK11
B557	9965 000 08519	MOTOR PULLEY U5
B558	9965 000 12235	LOADING MOTOR M31E-1 R14 7351
B559	9965 000 12236	CLUTCH ASSEMBLY(HI)(2) MK11
B560	9965 000 08522	KICK SPRING MK10
B562	9965 000 08524	C DRIVE LEVER L MK10
B563	9965 000 08525	SLIDER SHAFT MK10
B564	9965 000 12237	M GEAR(HYT) N12G5F*
B565	9965 000 12238	SENSOR GEAR MK11
B567	9965 000 08544	PINCH ARM(B) MK10
B568	9965 000 08545	BT ARM MK10
B569	9965 000 12239	CAM HOLDER F MK11
B570	9965 000 12240	CAM RACK SPRING(HI) MK11
B571	4822 532 13158	P.S.W. F
B572	4822 532 13159	P.S.W. 1.6X4.0X0.5T
B573	9965 000 12241	REEL S MK11
B574	9965 000 12376	REEL T MK10
B578	9965 000 12243	TR GEAR A MK10
B579	9965 000 12244	TR GEAR B MK10
B580	9965 000 12245	TR GEAR C MK11
B581	9965 000 12246	CENTER GEAR(HYT) N12G5F*
B582	9965 000 12247	TR GEAR SPRING MK10
B583	9965 000 05342	REEL WASHER MK9 5*2.1*0.5
B584	9965 000 12248	TR GEAR SHAFT MK10
B585	9965 000 13687	PSW(317505) MK11
B587	9965 000 14898	TENSION LEVER ASSEMBLY MK11

MCV CBA/001

Various

1008	9965 000 14801	SENSOR CBA

Main CBA

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C055	9965 000 15242	ELECTROLYTIC . 100µF /25V M
C056	9965 000 14863	ELECTROLYTIC . 47µF /25V M
C058	9965 000 15243	ELECTRIC DOUBLE LAYER 0.047
C063	9965 000 15244	ELECTROLYTIC . 47µF /16V M
C101	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C102	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C103	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C104	9965 000 15246	ELECTROLYTIC . 100µF /16V M
C107	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C108	9965 000 14862	ELECTROLYTIC . 470µF /6.3V M
C117	9965 000 15289	ELECTROLYTIC . 1µF /50V M
C121	9965 000 15246	ELECTROLYTIC . 100µF /16V M
C251	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C254	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C302	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C305	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C312	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C313	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C316	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C328	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C330	9965 000 15293	ELECTROLYTIC . 100µF /16V M
C331	9965 000 15294	ELECTROLYTIC . 220µF /6.3V M
C334	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C335	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C340	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C343	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C344	9965 000 15296	ELECTROLYTIC . 4.7µF /25V M
C345	9965 000 15297	ELECTROLYTIC . 0.47µF /50V M
C405	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C406	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C410	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C412	9965 000 15299	ELECTROLYTIC . 33µF /6.3V M
C415	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C417	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C421	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C451	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C454	9965 000 15301	ELECTROLYTIC . 2.2µF /50V M
C455	9965 000 15301	ELECTROLYTIC . 2.2µF /50V M
C456	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C457	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C458	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C459	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C460	9965 000 15302	ELECTROLYTIC . 47µF /16V M H
C462	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C463	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C468	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C469	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C470	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C471	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C473	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C475	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C478	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C479	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C480	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C506	9965 000 15294	ELECTROLYTIC . 220µF /6.3V M
C511	4822 126 12787	330pF 10% 50V
C514	4822 126 12787	330pF 10% 50V
C516	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C521	9965 000 15300	ELECTROLYTIC . 22µF /6.3V M
C534	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C549	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C550	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C553	9965 000 15303	ELECTROLYTIC . 22µF /10V M H
C632	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C633	9965 000 15291	ELECTROLYTIC . 1µF /50V M H7
C635	9965 000 12290	SEMICONDUCTOR . SR K 0.056U
C636	9965 000 15298	ELECTROLYTIC . 4.7µF /25V M
C637	9965 000 15292	ELECTROLYTIC . 47µF /6.3V M
C701	9965 000 15295	ELECTROLYTIC . 100µF /6.3V H
C708	9965 000 15290	ELECTROLYTIC . 10µF /16V M H
C752	9965 000 15304	ELECTROLYTIC . 47µF /10V M
C753	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M
C754	9965 000 15245	ELECTROLYTIC . 4.7µF /50V M

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D051	4822 157 10332	
D052	5322 130 81917	SB140
D053	4822 130 31933	1N5061
D054	9965 000 09283	ZENER DIODE DZ-10BSBT265
D055	4822 130 31933	1N5061
D056	4822 130 30621	1N4148
D057	5322 130 81917	SB140
D101	9965 000 12178	ZENER DIODE DZ-11BSAT265
D102	9965 000 12178	ZENER DIODE DZ-11BSAT265
D103	9965 000 12178	ZENER DIODE DZ-11BSAT265
D104	9965 000 12178	ZENER DIODE DZ-11BSAT265
D105	9965 000 12178	ZENER DIODE DZ-11BSAT265
D106	9965 000 12178	ZENER DIODE DZ-11BSAT265
D107	9965 000 12178	ZENER DIODE DZ-11BSAT265
D108	9965 000 12178	ZENER DIODE DZ-11BSAT265
D109	9965 000 12178	ZENER DIODE DZ-11BSAT265
D110	9965 000 12178	ZENER DIODE DZ-11BSAT265
D112	9965 000 12178	ZENER DIODE DZ-11BSAT265
D113	9965 000 12178	ZENER DIODE DZ-11BSAT265
D115	9965 000 12178	ZENER DIODE DZ-11BSAT265
D118	9965 000 12178	ZENER DIODE DZ-11BSAT265
D119	9965 000 12178	ZENER DIODE DZ-11BSAT265
D121	9965 000 12178	ZENER DIODE DZ-11BSAT265
D301	4822 130 30621	1N4148
D506	9965 000 08623	LED(GREEN) 204-10GD/S957
D507	9965 000 08623	LED(GREEN) 204-10GD/S957
D508	9965 000 08621	LED(RED) 204HD/E
D510	4822 130 30621	1N4148
D511	9965 000 15309	ZENER DIODE DZ-7.5BSAT265
D512	4822 130 30621	1N4148
D513	4822 130 30621	1N4148
D555	9965 000 05250	LED SIR-563ST3F P
D701	9965 000 09183	ZENER DIODE DZ-33BSDT265
D751	9965 000 15310	ZENER DIODE DZ-8.2BSAT265

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L051	4822 157 10332	
L052	9965 000 05627	CHOKE COIL 47µH -K
L053	4822 157 10649	100µH
L101	4822 526 10685	BEAD CORE
L102	4822 526 10685	BEAD CORE
L251	9965 000 08652	INDUCTOR 5.6µH -K-26T
L302	4822 157 63316	
L401	9965 000 05627	CHOKE COIL 47µH -K
L402	9965 000 05705	INDUCTOR 47µH -K-5FT
L451	9965 000 05627	CHOKE COIL 47µH -K
L452	9965 000 05627	CHOKE COIL 47µH -K
L501	4822 157 10649	100µH
L502	4822 157 10332	
L503	9965 000 08629	INDUCTOR 1.8µH -K-26T
L701	4822 157 11511	15µH -K-26T
L702	4822 157 10332	
L703	9965 000 05627	CHOKE COIL 47µH -K
L704	4822 157 10889	10µH

Q051	9965 000 12190	TRANSISTOR KTA1281(Y)
Q052	4822 130 10098	KRC103M
Q053	4822 130 42292	2SC2120Y
Q054	4822 130 10098	KRC103M
Q055	4822 130 10103	KTC3199Y
Q056	4822 130 42292	2SC2120Y
Q057	4822 130 10145	KRA103M
Q101	4822 130 10103	KTC3199Y
Q102	4822 130 10103	KTC3199Y

Q103	4822 130 42959	2SA1015Y
Q104	4822 130 42959	2SA1015Y
Q105	4822 130 10103	KTC3199Y
Q301	4822 130 42959	2SA1015Y
Q302	4822 130 10103	KTC3199Y
Q401	4822 130 10103	KTC3199Y
Q402	4822 130 10103	KTC3199Y
Q403	4822 130 42292	2SC2120Y
Q404	4822 130 42959	2SA1015Y
Q405	4822 130 10145	KRA103M
Q406	4822 130 10103	KTC3199Y
Q451	4822 130 10098	KRC103M
Q501	4822 130 10103	KTC3199Y
Q502	4822 130 10103	KTC3199Y
Q506	9965 000 08630	PHOTO TRANSISTOR PT204-6B-12
Q507	4822 130 10103	KTC3199Y
Q508	4822 130 10103	KTC3199Y
Q509	4822 130 10103	KTC3199Y
Q510	4822 130 10098	KRC103M
Q511	4822 130 10103	KTC3199Y
Q513	4822 130 10098	KRC103M
Q514	4822 130 10923	KTC3199(BL)
Q515	4822 130 10923	KTC3199(BL)
Q752	4822 130 10098	KRC103M

R054	4822 051 30223	22k 5% 0,062W
R064	4822 157 10332	
R065	4822 051 30223	22k 5% 0,062W
R101	4822 117 12925	47k 1% 0.063W 0603
R102	4822 117 12925	47k 1% 0.063W 0603
R122	4822 051 30103	10k 5% 0,062W
R134	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R140	4822 051 30223	22k 5% 0,062W
R251	4822 051 30393	39k 5% 0,062W
R301	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R303	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R304	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R305	4822 051 30103	10k 5% 0,062W
R315	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R319	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R320	4822 051 30393	39k 5% 0,062W
R322	4822 051 30103	10k 5% 0,062W
R325	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R327	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R328	4822 051 30561	560Ω 5% 0,062W
R331	4822 051 30183	18k 5% 0,062W
R332	4822 051 30103	10k 5% 0,062W
R333	4822 051 30183	18k 5% 0,062W
R334	4822 051 30103	10k 5% 0,062W
R337	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R339	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R403	4822 051 30103	10k 5% 0,062W
R404	4822 051 30103	10k 5% 0,062W
R405	4822 117 12925	47k 1% 0.063W 0603
R406	4822 051 30223	22k 5% 0,062W
R407	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R409	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R410	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R413	4822 051 30334	330k 5% 0,062W
R416	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R419	4822 051 30103	10k 5% 0,062W
R420	9965 000 09214	CARBON RES. 1/6W J 5.6k Ω
R452	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R453	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R454	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R455	4822 051 30393	39k 5% 0,062W
R456	4822 051 30393	39k 5% 0,062W
R458	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R459	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R460	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R461	4822 051 30223	22k 5% 0,062W
R462	4822 117 12902	8k2 1% 0.063W 0603
R463	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R464	4822 051 30393	39k 5% 0,062W
R465	4822 051 30393	39k 5% 0,062W
R466	4822 117 12902	8k2 1% 0.063W 0603
R467	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R468	4822 051 30393	39k 5% 0,062W
R469	4822 051 30393	39k 5% 0,062W
R470	9965 000 10005	CHIP RES.(1608) 1/10W J 22 Ω
R471	4822 117 12902	8k2 1% 0.063W 0603
R475	4822 051 30471	470Ω 5% 0,062W
R476	4822 051 30103	10k 5% 0,062W
R502	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R503	9965 000 09966	CHIP RES.(1608) 1/10W J 390k O
R504	4822 051 30152	1k5 5% 0,062W
R507	4822 117 12902	8k2 1% 0.063W 0603
R537	4822 051 30681	680Ω 5% 0,062W
R538	4822 051 30152	1k5 5% 0,062W
R539	4822 051 30103	10k 5% 0,062W
R540	4822 051 30103	10k 5% 0,062W
R541	4822 051 30103	10k 5% 0,062W
R543	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R544	4822 051 30103	10k 5% 0,062W
R545	4822 051 30103	10k 5% 0,062W
R546	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R547	4822 051 30103	10k 5% 0,062W
R550	4822 051 30103	10k 5% 0,062W
R553	4822 051 30103	10k 5% 0,062W
R555	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R557	4822 051 30103	10k 5% 0,062W
R563	4822 051 30103	10k 5% 0,062W
R565	4822 051 30103	10k 5% 0,062W
R566	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R568	4822 117 12891	220k 1% ERJ3Ω
R569	4822 051 30103	10k 5% 0,062W
R572	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R575	4822 051 30334	330k 5% 0,062W
R576	4822 051 30103	10k 5% 0,062W
R577	4822 051 30152	1k5 5% 0,062W
R578	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R581	4822 051 30103	10k 5% 0,062W
R583	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R587	9965 000 09942	CHIP RES.(1608) 1/16W J 330k O
R588	4822 051 30471	470Ω 5% 0,062W
R589	4822 051 30223	22k 5% 0,062W
R633	4822 051 30103	10k 5% 0,062W
R634	4822 051 30103	10k 5% 0,062W
R635	4822 051 30272	2k7 5% 0,062W
R636	4822 051 30103	10k 5% 0,062W
R637	4822 051 30562	5k6 5% 0,063W 0603 RC21 RST SM
R704	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R705	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R755	4822 117 12925	47k 1% 0.063W 0603
R756	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
R757	9965 000 13036	CHIP RES.(1608) 1/10W J 1k Ω
X301	9965 000 05629	X'TAL 4.433619MHz
X501	9965 000 12194	X'TAL 12.000MHz
X502	9965 000 12288	X'TAL 32.768KHZ(20PPM)
IC1052	9965 000 15313	1.8V REGULATOR PQ018EF01SZ
IC1053	9965 000 14884	IC KIA431-AT
IC1201	9965 000 15314	IC:OP AMP KIA4558P
IC1204	9965 000 15318	FIBER OPTIC TRANS.MODULE 0C-08

C1247	9965 000 14853	ELECTROLYTIC . 470μF /16V M
C1249	9965 000 15244	ELECTROLYTIC . 47μF /16V M
C1351	9965 000 15300	ELECTROLYTIC . 22μF /6.3V M
C1356	9965 000 15292	ELECTROLYTIC . 47μF /6.3V M
C1402	4822 157 10332	
IC1402	9965 000 15319	DRIVER FOR DVD(6CH) MM1567AJBE

C1442	9965 000 14862	ELECTROLYTIC . 470μF /6.3V M
C1445	9965 000 14862	ELECTROLYTIC . 470μF /6.3V M
C1461	9965 000 15289	ELECTROLYTIC . 1μF /50V M
C1462	9965 000 14862	ELECTROLYTIC . 470μF /6.3V M
C1471	9965 000 15289	ELECTROLYTIC . 1μF /50V M
C1481	9965 000 15289	ELECTROLYTIC . 1μF /50V M
C1482	9965 000 14862	ELECTROLYTIC . 470μF /6.3V M
C1486	9965 000 15291	ELECTROLYTIC . 1μF /50V M H7
C1532	9965 000 15300	ELECTROLYTIC . 22μF /6.3V M
CN505	4822 267 10729	10FE-BT-VK-nF
CN701	9965 000 15305	AFV PCB ASSEMBLY CP2500/9300

D1051	9965 000 14880	PCB JUMPER D0.6-P10.0
D1052	9965 000 15311	ZENER DIODE DZ-13BSBT265
D1053	9965 000 14880	PCB JUMPER D0.6-P10.0
D1056	9965 000 14880	PCB JUMPER D0.6-P10.0
D1060	4822 130 30621	1N4148
D1401	9965 000 12178	ZENER DIODE DZ-11BSAT265
D1402	9965 000 12178	ZENER DIODE DZ-11BSAT265
D1501	4822 157 10332	
IC301	9965 000 12180	IC:Y/C/A LA71750AM-MTB
IC451	9965 000 12181	IC:HIFI LA72646M
IC501	9965 000 15312	MICROCONTROLLER 16BIT M37762MC
IC502	9965 000 06554	IC:MEMORY BR24C02F-W
IC631	9965 000 12198	IC:VPS/PDC SLICER LC74793JM-TR
IC751	9965 000 13852	IC:SWITCH TC4053BF(N) OR

L1251	9965 000 15331	INDUCTOR 0.47μH -K-26T
L1521	9965 000 05627	CHOKE COIL 47μH -K

CN10019	9965 000 15306	FMnF CONNECTOR, SIDE 26P 26FMN-

CN16019965 000 15307 FMnF CONNECTOR, TOP 21P 21FMN-B
CN20029965 000 15308 FMnF CONNECTOR, SIDE 10P 10FMN-
PS502 9965 000 12189 PHOTO INTERRUPTER RPI-302C70

Q1051 4822 130 11691 KRA110M
Q1052 4822 130 10103 KTC3199Y
Q1053 9965 000 15332 RES. BUILT-IN TRANSISTOR KRC11
Q1054 9965 000 11122 KTC3205Y
Q1055 9965 000 11123 KTA1273Y
Q1057 4822 130 60258 2SC2001K
Q1201 4822 130 10103 KTC3199Y
Q1202 4822 130 10103 KTC3199Y
Q1203 4822 130 42959 2SA1015Y
Q1204 4822 130 42959 2SA1015Y
Q1351 4822 130 10103 KTC3199Y
Q1501 4822 130 10098 KRC103M
Q1502 4822 130 10098 KRC103M

R1053 4822 051 30223 22k 5% 0,062W
R1056 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1080 4822 051 30103 10k 5% 0,062W
R1081 4822 051 30103 10k 5% 0,062W
R1201 4822 117 12891 220k 1% ERJ3Ω
R1202 4822 117 12891 220k 1% ERJ3Ω
R1203 5322 117 13028 12k 1% 0.063W 0603 RC22H
R1204 5322 117 13028 12k 1% 0.063W 0603 RC22H
R1205 5322 117 13032 18k 1% 0.063W 0603 RC22H
R1206 5322 117 13032 18k 1% 0.063W 0603 RC22H
R1207 4822 051 30393 39k 5% 0,062W
R1208 4822 051 30393 39k 5% 0,062W
R1209 2322 704 65603 RST SM 0603 RC22H 56k PM1 R
R1210 2322 704 65603 RST SM 0603 RC22H 56k PM1 R
R1211 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1212 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1223 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R1224 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R1225 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R1226 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R1245 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1247 4822 051 30393 39k 5% 0,062W
R1360 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1364 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
R1502 4822 051 30103 10k 5% 0,062W
R1521 4822 157 10332
R2039 4822 051 30103 10k 5% 0,062W
SW501 4822 276 13954 KSM0614B
SW502 4822 276 13954 KSM0614B
SW503 4822 276 13954 KSM0614B
SW504 4822 276 13954 KSM0614B
SW505 4822 276 13954 KSM0614B
SW506 9965 000 15333 LEAF SWITCH LSA-1142-1AU
SW507 9965 000 08561 ROTARY MODE SWITCH SSS-43MD
SW508 4822 276 13954 KSM0614B
SW511 9965 000 15334 TACT SWITCH KSM0611B

TP301 9965 000 15335 PCB JUMPER D0.6-P6.0
TP501 4822 157 10332
TP502 4822 157 10332
TP503 9965 000 15335 PCB JUMPER D0.6-P6.0
TP504 4822 157 10332
TP751 9965 000 15336 PCB JUMPER D0.6-P28.0
TU701 9965 000 12265 TUNER UNIT TMDG2-631A
VR501 9965 000 05260 CARBON P.O.T. 100K OHM B
SW20114822 276 13954 KSM0614B
SW20124822 276 13954 KSM0614B
SW20164822 276 13954 KSM0614B
SW20174822 276 13954 KSM0614B

Function CBA

IC2001 9965 000 15339 FL DRIVER IC PT6315-S(-TP)

C2004 9965 000 15295 ELECTROLYTIC . 100μF /6.3V H
C2055 9965 000 15337 ELECTROLYTIC . 22μF /50V M H

D2001 4822 130 30621 1N4148
D2003 4822 130 30621 1N4148
D2004 4822 130 30621 1N4148
D2005 4822 130 30621 1N4148

L2001 4822 157 10649 100μH
FL2001 9965 000 15338 V.F.D. 20U29100SAN

L2003 4822 157 10332
L2004 4822 157 10332

RM20019965 000 10857 REMOTE RECEIVER

CN20019965 000 15308 FMnF CONNECTOR, SIDE 10P 10FMN-

Q2022 4822 130 42959 2SA1015Y

R1041 4822 157 10332
R2002 4822 051 30103 10k 5% 0,062W
R2003 4822 051 30103 10k 5% 0,062W
R2010 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R2011 4822 051 30103 10k 5% 0,062W
R2037 4822 157 10332
R2038 4822 051 30103 10k 5% 0,062W
R2059 9965 000 09942 CHIP RES.(1608) 1/16W J 330k O
SW20144822 276 13954 KSM0614B

Front jack CBA

D651 9965 000 08621 LED(RED) 204HD/E
D652 9965 000 08621 LED(RED) 204HD/E
D653 9965 000 08623 LED(GREEN) 204-10GD/S957

R655 9965 000 13036 CHIP RES.(1608) 1/10W J 1k Ω
R656 9965 000 09966 CHIP RES.(1608) 1/10W J 390k O

CN651 4822 267 10729 10FE-BT-VK-nF
SW651 4822 276 13954 KSM0614B
SW652 4822 276 13954 KSM0614B
SW653 4822 276 13954 KSM0614B
SW654 4822 276 13954 KSM0614B

Junction A CBA

CN050 9965 000 15343 CONNECTOR, 14P TUC-P14X-B1

Junction B CBA

CN051 9965 000 13917 CONNECTOR, 6P TUC-P06X-B1

DVD CBA

Q503 9965 000 08630 PHOTO TRANSISTOR PT204-6B-12
Q504 9965 000 08630 PHOTO TRANSISTOR PT204-6B-12

PSU CBA

C013 9965 000 14852 ELECTROLYTIC . 10μF /50V M
C018 9965 000 14853 ELECTROLYTIC . 470μF /16V M

D013 4822 130 41487 BYV95C
D015 4822 130 83883 FR202
D019 9965 000 14880 PCB JUMPER D0.6-P10.0
D020 4822 157 10332

L008 9965 000 05627 CHOKE COIL 47μH -K
F1001! 4822 070 31602 21801.6(1.6A)

Q1001! 9965 000 05255 FET FS2KM-18A

L1003! 9965 000 12188 LINE TER 50mH LF-4Z-E503

C1006! 9965 000 06522 SAFTY . 2200pF /250V
IC1001 4822 130 11655 LTV817B-F

C1002 9965 000 14855 ELECTROLYTIC . 22μF /50V M
IC1002 9965 000 14884 IC KIA431-AT

C1003 4822 126 14142 0.01μF 500V
C1004 9965 000 14856 ELECTROLYTIC . 33μF /400V M
C1005 4822 126 14141 56pF 1KV
C1007 4822 124 12427 1000μF 20% 10V
C1008 9965 000 14857 ELECTROLYTIC . 1000μF /16V M
C1012 9965 000 14858 ELECTROLYTIC . 470μF /25V M
C1018 9965 000 14859 ELECTROLYTIC . 100μF /10V M
C1035 9965 000 14853 ELECTROLYTIC . 470μF /16V M
C1038 9965 000 14862 ELECTROLYTIC . 470μF /6.3V M
IC1041 9965 000 14885 3.3V REGULATOR KIA78R33PI

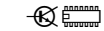
C1044 9965 000 14863 ELECTROLYTIC . 47μF /25V M
C1048 9965 000 14864 ELECTROLYTIC . 220μF /16V M
CN001 9965 000 14879 CONNECTOR BASE, 14P TUC-P14P-B
CN002 9965 000 13843 CONNECTOR BASE, 6P TUC-P06P-B1

D1001 4822 130 31933 1N5061
D1002 4822 130 31933 1N5061
D1003 4822 130 31933 1N5061
D1004 4822 130 31933 1N5061
D1005 5322 130 80285 SB350
D1006 4822 130 30621 1N4148
D1007 4822 157 10332
D1008 4822 130 32715 SB340
D1009 4822 130 83883 FR202
D1010 4822 130 41487 BYV95C
D1011 5322 130 34979 BYV96E
D1012 4822 130 30621 1N4148
D1013 9965 000 09323 ZENER DIODE DZ-9.1BSCT265
D1014 9965 000 09182 ZENER DIODE DZ-5.1BSCT265
D1015 9965 000 14881 ZENER DIODE DZ-6.8BSBT265
D1016 9965 000 14882 RECTIFIER DIODE FR101
D1017 9965 000 14883 ZENER DIODE DZ-18BSCT265
D1018 4822 130 30621 1N4148
D1022 4822 130 30621 1N4148
D1024 4822 130 30621 1N4148
D1025 4822 130 30621 1N4148
D1030 4822 130 83883 FR202
D1041 4822 130 31933 1N5061
D1042 4822 130 31933 1N5061
D1043 4822 130 31933 1N5061
FH1001 4822 256 10461 FUSE HOLDER MSF-015
FH1002 4822 256 10461 FUSE HOLDER MSF-015

L1001 4822 526 10685 BEAD CORE
L1002 4822 526 10685 BEAD CORE
L1006 9965 000 05627 CHOKE COIL 47μH -K
L1007 9965 000 05627 CHOKE COIL 47μH -K
L1008 9965 000 05627 CHOKE COIL 47μH -K
L1009 9965 000 05627 CHOKE COIL 47μH -K

Q1003 4822 130 10103 KTC3199Y
Q1008 4822 130 10103 KTC3199Y

R1011 9965 000 08633 METAL OXIDE FILM RES. 1W J 1.8
R1040 4822 157 10332



T001! 9965 000 14886 PULSE TRANS CSA-SW0120A

AFV CBA

Various

D2 4822 130 30621 1N4148
D2 4822 130 32778 1SS133
L1 4822 157 10889 10UH
L2 4822 157 10332
L3 4822 157 11318 18UH 10%
L4 4822 157 10889 10UH
R1 9965 000 13036 CHIP RES.(1608) 1/10W J 1K OHM
R4 9965 000 13037 CHIP RES.(1608) 1/10W J 120K O
R5 9965 000 09942 CHIP RES.(1608) 1/16W J 330K O
R6 9965 000 09942 CHIP RES.(1608) 1/16W J 330K O
X1 9965 000 12200 X'TAL 18.432MHZ
C12 9965 000 14891 ELECTROLYTIC CAP. 10UF/16V M H
C15 9965 000 14891 ELECTROLYTIC CAP. 10UF/16V M H
C16 9965 000 14891 ELECTROLYTIC CAP. 10UF/16V M H
C20 9965 000 14892 ELECTROLYTIC CAP. 3.3UF/50V M
C22 9965 000 14891 ELECTROLYTIC CAP. 10UF/16V M H
C24 9965 000 14893 ELECTROLYTIC CAP. 0.22UF/50V M
CN1 4822 265 11267 ANGLE PIN HEADER 9P
IC1 9965 000 12274 IC:AUDIO PROCESSOR MSP3407G-QG